

Col.
Next address until Friday = Dooly's Hotel
Ber.

Telephone No. —
Dublin 62286.

ÁRD-MHÚSAEUM NA h-ÉIREANN
(National Museum of Ireland).

SRÁID CHILL DARA 129
(Kildare Street)

BAILE ÁTHA CLIATH (DUBLIN), 19.....

Hymenoptera from Miss A. R. Crawford.
August 1929.

Abia candens ♀. Cranmore, AN. 10.6.29. I

Athalia lineolata ♂ " " " "

Nomada ruficornis ♀ " " " 30.5.29. ill
A very dark var, with black mesonotum & yellow
spots on 2nd segment very widely spaced!

Crabro chrysostomus ♂ " " " 11.6.29. it

C. leucostomus ♀ " " " 24.5.29. row.

Amblystus armatorius ♂ Portlinter, AN. 9.7.29.

Desmophiles caliginosus Grav. ♀ (agrees with
diagnosis + Brauns coll. ♀!) eats
Cranmore, AN. 29.5.29. fly
nest

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Birr

WHITE'S HOTEL,
WEXFORD.

July 23rd - 1929

My dear Stelfox,

Thanks for your letter
received in Cork yesterday.

I am glad to know that the specimen
of A. carbonaria is correct and I
hope that the small Halictus will
prove to be H. minutissimus = punctatissimus.

I caught the A. carbonaria as it
landed, apparently to enter a burrow,
on a bare sandy spot about half-
way up the slope of the upper
pit, so the species evidently nests
in the place. I was there only

(1.30 to 2.30 P.M.)

about an hour when a thick mist

Came on and dispersed all bees.

The little *Halictus* was resting on the face of a cutting in the sand.

If you visit the place please examine a couple of old pits overgrown with brambles. There are some very large burrows in them but it was too cloudy when I was there for the insects to come out.

I got here last night but this has been a very wet day here and I am leaving tomorrow morning.

There is a large colony of bees on the wall of the Wexford bridge, on the sand-pit end, as on Seerawash Bridge!

The specimen of *Meleophila centumularis* was taken - flying along the stones of the mud-capped fence by the

roadside at Enniscorthy, the earth on top of the fence is almost "honey-combed" by a great colony of bees.

The enclosed few insects were all taken after 8 P. M. on the evening mentioned!

Glad to hear that you had a good day in the Deputy's Pass.

With kind regards to all

Yours sincerely

R. A. Phillips

Hymenoptera sent by Miss
Agatha Crawford Oct 1930.

- Bombus hortorum ♂ Belfast. 27.8.29!
Vespa norvegica ♀. " (nest). 5.8.30!
V. sylvestris ♀. " 3.5.30.
V. germanica ♀ " 5.8.30.
V. vulgaris ♀ " 3.5.30.
Bombus terrestris small ♀ " 27.8.29.
And. jacobii v. sectica ♂. " 7.5.28.
B. agrorum ♀ " 27.8.29.
Halictus calceatus ♂. " 25.8.29.
Odynerus (immature) ♂
(? pictus or parietinus)
Belfast (bud) 12.6.30.
O. parietinus Belfast. 13.6.30.
And. jacobii v. sectica ♀. " 13.5.30.
very fresh!
Halictus rubicundus fresh ♀ " 29.8.29.
Crabro chrysostomus ♀. " 7.8.29.
And. sericea ♀ Portlallen, AN. 26.8.29.
day out of nest in sand.
Odynerus pictus ♀. Belfast. 4.6.30.
And. jacobii ♂, very fresh, " 21.4.29.
Tenthredopsis nigricollis (Am.)
"On spinach". ♀. " 12.6.30.

Chasmodon notatarius ♀.

In other log, Cranmore, Belfast. 24.1.30.

Halictus rubicundus ♀. Belfast 1930.

V. germanica ♀ with ! on face. " 6.9.30.

V. rufa ♀. 10.6.29. } Belfast.

V. austriaca. 13.6.30. }

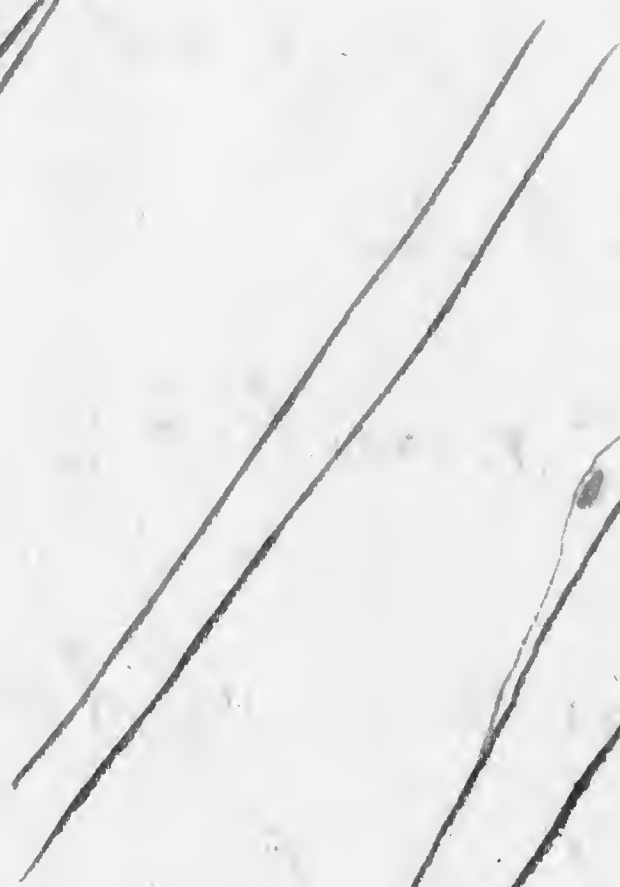
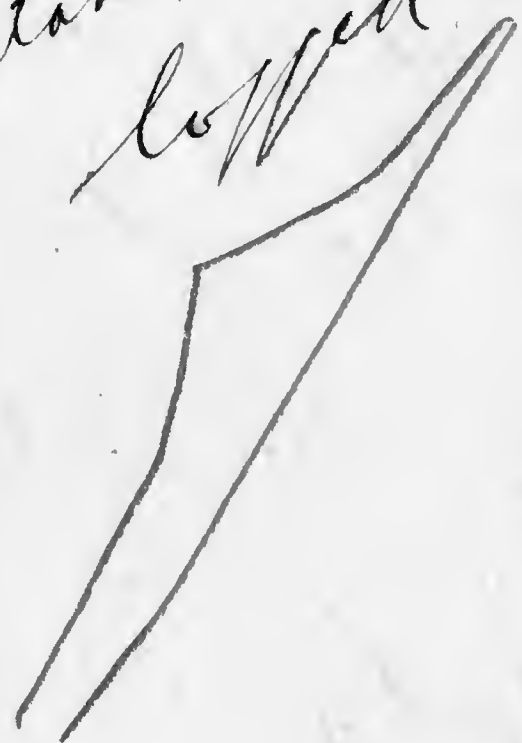
Crabro chrysostomus ♂ 11.6.29. "
very dark!

Formica fusca ♀ found carrying an

Apple 13.5.30.

Myrmica ruginodis ♂ & ♀.

Important records
logged!



C. chrysostomus

And. seneca

Odynerus pictus

O. parietarius

records
still
old

new

for
both
old

Antrenia

Halictus

? records

A.W.S.

Spanish Point Co. Cal.
9.11.1930. R.A. Phillips

Ichneumon suspiciosus ♀.

Colpognathus divinus 2♀♀

Shaken out of rocks of
Amniophila on sandstone.

With postcard dated 3/3/30.

List of Limonotae & Banchidae sent to S. Roman, Feb. 1930.

= 89 & 90.

Nrs wanted underlined. A. Rm.

1. & 2. L. parallela ♂ & ♀. Brittas Bay, WI. 7.8.1929.

This ♀ is the blackest specimen I have taken!

91

3. L. irrigua or nitida? ♀. Cahore, WX. 15.7.1929.

To judge from descriptions, both ought to be the same species, but

92 I have nothing of this short-tailed species.

4. L. sp.? ♀. Might be a freak of L. bellator but unlike any other specimen I have seen. Wilcarr, CW. 25.7.1927.

Might be a var. of carbonaria Hgn, but I am not quite sure the abd. is normal.

93 & 94
5. & 6. L. deversor ♀ & ♂. Deputy's Pass, WI. 19.7 & 24.7.1929.

95 I think they are L. palpalis Thun, though having never before seen the species, I may be mistaken. Palpalis ♂ undescribed.

7. L. sp.? ♀. (cf. L. varicosa). Clons, WX. 17.7.1927.

96

8. L. sp.? ♀ (cf. L. humerella). Rathdrum WI. 8.7.1926.
~~Upper Liffy, WI. 2.9.1927.~~

7 & 8 are the same species, L. buccator Thunb. The 1st abd'l segm. is somewhat different in both, but this is accidental; I have seen it before in L. carbonaria & melanica, who are also the same species.

97
9. L. sp.? ♀. Upper Liffy, WI. 2.9.1927.

10. L. buccator Thunb. too.

11. L. sp.? ♂. Glen of Inaal, WI. 31.7.1927.

A melanistic ♂ of L. errabunda Hgn (compared with types).

99 & 100

11. L. errabunda ♂ + ♀. Rathdrum, WI. 8.7.1927.

11 is errabunda like 10. No. 12 may be errabunda, but if so it is very un-
characteristic & smaller than the ♀ types.

101.
13. L. errabunda (?) ♀ Sand dunes, Buttas Bay, WI. 7.8.1929.
= No. 12 ♀, but has yellow points on vertex, hind trochant. red.

102.
14. L. sp. ? ♀ (? L. dubia). Ballyhenry, WI. 29.8.1926.

Not dubia, who has a terebra longer than the body (not rare on spruce
here). Very near a n. sp. I have from S. Sweden & from Germany, living on Agay-
reithia.

103.
15. L. sp. ? ♀ (cf. L. transversa). Lucan, DU. 5.8.1923.

This ♀ has very strongly punctured abdomen (seg. 2 + 3!).

104. L. buccator Thunb. ♀. [No. 103 formerly named varicosa by Rev. W. F. J.]

16. L. sp. ? ♀ (cf. No. 15). Lucan, DU. 5.8.1923.

Abdomen less strongly punctured! but ^{with} the same kind of sculpture.

105. L. buccator, w. rudimental vertical dots. [104 formerly named humirella
by Rev. W. F. Johnson.]

17. L. sp. ? ♀ (? cf. Nos. 15 & 16). Drumgoff, WI. 29.7.1929.

= No. 16. It is remarkable none of the present specimens have the

two red facial stripes not rare in Sweden & used as a character for varicosa (Thom.)

106.
18. L. sp. ? ♀ with short terebra. ? bred from pine cones

brought home from Powerscourt, WI. 21.8.1927.

L. culiciformis Cr., dark var.

107.
19. L. clypealis ♂ ♀. Clara, WI. 29.7.1929.

Correct.

103 was
marked to piece
in return journey.
A.W.S.

108.

20. *L. sp. ♀*. Clongal, CW. 9.8.1929.

L. ? punctiventris Thun. Have no material for comparison at hand.

109

21. *L. sp. ?*. Very small ♀. Sand dunes, Portrane, DU. 31.8.1928.

Unknown to me. Antennae broken, due to the short needle.

110

22. *L. sp. ? ♂*. Taken with No. 21! Looks like a small *L. errabunda*?

Sculpture of abd. much smoother than in *errabunda*. May belong to No. 21.

111

23. *L. sp. ? ♂* with elongate abdominal segments.

Meeting of the Waters, WI. 23.7.1927.

✓ May be a small & dark *L. clypeator* Gr. (*communis* Hgn.).

112.

24. *Exetastes sp. ? ♀*. (? var. of *E. guttatorius* with black scutellum)

Kildavin, CW. 9.8.1929.

✓ *E. illusor* Gr. ♀ var *pedibus nigris*. Ant. thinner than in *adpressus* ^(Thunb.)

25. *E. fornicator* V ♀. Mt. Butler, VT. 17.8.1927.

Correct.

114.

26. *Banchus pictus*. ♂ Meeting of the Waters, WI. 25.3.1928. ^(described the ♀)

✓ *B. crefeldensis* Ulbr. ♂. The northernmost locality known (A. Seyrig has)

27. *B. volutatorius* ♂. Cahore, UX. 21.7.1929.

✓ Correct, ♂.

28. *B. moniliatus*. Ballyvoyle, WA. 27.7.1928.

✓ *B. volutatorius* L. ♀.

29. *B. sp. ?* (? *compressus*). Powerscourt, WI. 19.6.1925.

B. femoralis Thun ♂.

4, THURLESTONE ROAD,

NEWTON ABBOT,

DEVON.

2. x. 30

Dear Stelfox,

I sent you a P.C. to-night before post time to correct an item in the list of spp. I had sent previously.

Your $\frac{1}{3}$ flat larva on *Alnus* is that of Platycampus luridiventris.

Pamphilius larvae are $\frac{1}{3}$ different. Those I have seen have only the 3 pair of true legs - no prolegs on abd. segs - & live either in tubes or cases made of leaves or else gregarious in webs - queer beast, almost repulsive. Your other less flat larvae are one or two species of *Nematodes*. I have bred the two commoner ones of the 3 on alder, & also the one on birch, the larvae of which being black or sooty & not as Ersler's book describe it, puzzled me for a season or two before I got the imago. [I sent you ♂♂ of this, caught by John this year] The nearly all green, & not fawn, larva on alder of the form of *Septentrionalis* is varius as you suggest. Mem. If you can breed the black *Grossularia* larva of birch, please send me a ♀ or two.

I only bred the 6 ♂ from those you sent me a year or two ago.

There are also a number of common *Tenthredinini* larvae on alder - things like Rhogogaster viridis - but I have never tried to breed these.

Your pink-striped larva on *Salix* is pretty sure to be Pteronidea curtispina & your white waspy one on alder may be

4, THURLESTONE ROAD,

NEWTON ABBOT,

DEVON.

Empria pulverata, unless it is a very young Amber or Trichosoma
some spp. of which I believe are two seasons in larval state.

We have really had almost unspeakable weather this September,
& August, except for that super-tropical spell of a few days, was
so bad. When the last bad spell of weather began in September,
i.e. when we still had some sun & warmth ^{occasionally}, our 2nd brood of Pieris
vanillae were fresh & abundant about the house: since then
apparently every one has been killed & there is not an egg or larva
to be found on the cabbages in the garden next to ours, where
usually there are any quantity. I should think it will be
as rare as a Canterbury bell next Spring!

I am even beginning to doubt whether I shall get to the Helictes
angusticeps locality — 3 hours each way! — to dig out ♀♀ this
year. I may trust to the chance of finding them next April &
catching them abroad.

Yours truly
R. C. L. Perkins.

Telephone No.:—
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ÁRD-MHÚSAEUM NA h-ÉIREANN
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SRÁID CHILL DARA
(Kildare Street)

BAILE ÁTHA CLIATH (DUBLIN),.....19.....

Insects sent by George O'Sullivan from
Overland Station, C. I. D.
June 1930.

Andrena fucata 1 ♀.

A. lapponica? 3 ♀♀ covered with yellow pollen.

A. coarctata 2 ♂♂.

A. albicans 1 old ♂.

Bombus lapidarius ♀.

Abia sericea ♂ & ♀.

Tenthredo arcuata ♀.

Ampylata scutellus ♂.

Pimpla truncatella ♀.

Mr. Galway, Co. W.G. R.A. Phillips. 1.9.1929.

Sawfly.

Leisonota cylindrator ♂. L. basalis ♂. Glypta mensurator
var. ? with long ovipositor.

Pimpla brevicornis v. large ♀. Ichneumon 2 spp. ♀♀. 1 ♂ ? Spilichneumon.

Pompilus gibbus large ♀. Crabro vagans ♀.

Shankill, Co. DU. A.A. Lisney. 5.9.1929.

Polyrhina ♀, ? a blackish var. of multicolor Grav.

Hemiteles ? 2 spp.

Do. do. A.A.L. 10. ^{July} 1929.

Pemphredon shuckardi ? ♂ + ♀, with very polished + clearly punctured thorax.

Mr. Balbriggan, Co. DU. A.A. Lisney. 12.8.1929.

Ichneumon spp. 1 ♂ + 1 ♀

Valentia Island, Co. SK. Miss M.J. Delap.

Sawfly

Platylabus dimidiatus ♀.

DIARY OF
INSECTS & C., CHIEFLY
HYMENOPTERA
collected by A. W. Stelfox
1929-30-31.

VOL. 3.

EASTER 1929.

28th March 1929. A glorious hot sunny day & a
fine night.

Ballyhenry quarry, WI. about noon.

Bombus sp. heard.

Andrena apicalis? ♂♂ seen.

Halictus rubicundus & *tumescens* ♀♀ seen.

No sawflies: willows very backward & only a few out.

Bombus pascuorum ♂♂ flying over grass in quarry.

28.3.29. Gold Mine Valley, WI. 1-30 till 4 pm.

Bombus jonellus?, *B. lucorum* ♀♀ seen.

Andrena minutula 1 ♀ in oak wood.

Vespa vulgaris ♀ taken & released.

No sawflies! Willows: none yet out, very backward.

Cryptopimpla anomala * 2 ♂♂ 1 ♀ flying about Holly in oak woods.

note.

* *Exochus excavatus*, green form, under log.

* In May 1929 I sent a ♂ & ♀ *C. anomala* to S. A. Roman of Stockholm as a present & in acknowledging same he said that they were correctly named & that the ♂ agreed with the only ♂ in the museum there but did not agree with Schmiedeknecht's description of ♂ (which I already knew!) A.W.S.

29th March 1929 (Good Friday). Very hot & not a cloud
after frosty night.

Left "Merlin" at 6 AM & drove to Wexford to meet
Mr. & Mrs. H. Womersley of Bristol. After
breakfast spent an hour in sand-pit at N. end
of the wooden bridge where took:-

Andrena clarkella ♂

A. nigro-aenea ♂♂ numerous & 1 ♀ seen. All v. fresh.

A. minutula 1 ♂.

Other specimens seen may have been *A. ^{gryneus} clarkella* ♂♂

Halictus rubicundus ♀ seen.

[NB. I presume this is the sand-pit where Phillip
took ♀ *Andrena carbonaria* in June 1928.]

Next drove to Clonsilla (Scarawalsh Bridge) 3 miles N.
of Enniscorthy where spent a couple of hours & took
Vespa vulgaris ♀ seen.

Andrena praecox very fresh ♀ at Felix & R. Bank.

Halictus calcitrans ♀

Saw my own Red Admiral butterfly at N. end of
wooden bridge Wexford, several times during stay
there in the morning.

30th March 1929. Very hot & sunny all day.

Drove to head of Glencannan & walked up to L. Ouler & cliffs of Tonsleyce, UI. H. Womersley took *Andrena* ^{RCLP} ~~sericea~~ ^{sericea} at about 1,500 feet: a very early date!!

On cliff at 2,000 to 2,200 ft., there still were drifts of snow took amongst Linum & mosses a *Cynipid*

31st March 1929. (Easter Sunday). Windy & a slight depression passed over, with a good deal of cloud. Spent day in Devil's Glen with Womersleys. One bee? sp. seen: no ticks.

1st April 1929. A cold, blustering day with sun clouds & slight showers. Spent most day at Clara, UI. There nothing seen & in afternoon in Dargle there nothing seen either. Then home. Ground dry in flower in Dargle! Blackthorn out near Arklow.

2nd April 1929. A cold, stormy day, with strong NW wind but a good deal of hot sun.

Spent afternoon, with Womersleys, along S. cliffs of Horsh, DU. at Drumleek.

Bombus lucorum ♀ seen.

Andrena nigroaenea ♂♂ common.

7th April 1929. A fine mild morning, but depression approaching at 11 AM caused cold & mist rain all day. Drove Palmer's to Ballyhenry, UI. There saw *Bombus lucorum* & *terrestris* ♀♀ at willows. Then to Vale of Clara & over Wicklow Gap & home via Blessington, but nothing else seen.

10th April 1929 (afternoon). Drove Glencannan & Bohernabreena, DU. ^{with G. Palmer!} Very hot sun, but strong cold N. wind. Too windy for samples & none seen. Two ticks seen but not captured (one was? *hirsuta* *carthagenis* ♀ & at willow).

Andrena clarkella many ♀♀, mostly faded, seen at coomb sp. Mr. Doyle's & opposite Brady's.

A. pygmaea ♂♂ & very fresh ♀♀ seen at both places.

A. nigroaenea ♂♂ at first & very fresh ♀ at second place.

A. sericea a few ♂♂ seen opposite Brady's, just below spot where on 5th April 192 I saw a doubtful ♀.

10.4.29 cont. Linn Glenasmole.

Halictus rubicundus ♀♀ seen at both places.

Halictus calceatus ♀ seen along river bank.

H. albipes ♀ with last.

H. freygesseri ♀♀ in count opposite Mr. Doyle.

[One very small ♀ only size of *nitidiusculus*? this species.]

Nomada leucophaea 2♀♀, one along W. side of river & the other in count opposite Mr. Doyle.

Vespa rufa small ♀♀ in both places.

Salix fusca ♂♂ both opposite Bradys & opp. Mr. Doyle.

Bombus lucorum many ♀♀, *B. terrestris* a few ♀♀, & *B. jonellus* 1 small ♀ seen or taken.

Willow Wren abundant; also Green-headed Vireo & a few ♂ Orange-tips, butterflies seen.

→ many small ♀
H. freygesseri!
A.V.S. 8.10.29!

14th.

14th April 1929. A dull cold morning with strong cold S.E. wind; clearing at about mid day, but a high mist robbed sun of almost all heat & little out but a few ♂♂ *Andrena*. With J.G.J. Palmer!

12 noon till 12.45. Sunny but very cold strong wind.

Ballyhenry quarry, WI. Took ♀ *Nomada leucophaea* & Palmer a ♂ *Andrena nigroparva*. *Bombus lucorum* 1♀ seen.

1.30 till 2.45. Cold minus Valley, WI. No sun & very cold. Collected some larvae of Marsh Fritillary but nothing flying. *Stitchwort* in flower in hedge on road!

3 pm. till 4 pm. Sunny & out of wind.

Left bank of Avonmore (at Ballyorthen gate), Avoca, WI.

Salix fusca ♂♂ & 1♀ (P.)

Andrena pygmaea 1♀ seen. *A. albicans* ♂ on dandelion (P.)

A. nigroparva ♂♂. *A. jacobae* ♂ on forse, others seen.

No sign of any *Halicti* & no ♀ *Andrena* working!

One or two *Bombi* seen, probably all *lucorum*.

One black, slender, ichneumon, 3/4 inch long, seen but missed!

Goldilocks in flower at Avoca.

20th April 1929. A beautiful day till 2 pm. but after I reached the ground only five minutes sun & then a cold "jam" formed from NE & no more sun.

Marsh in the Quill channel, Kilmacanogue, WI.
2.30 till 3 pm. Cuckoo Flower out!

Dolerus maculatus ♂ & ♀ very fresh.
Andrena albicans ♂♂, *A. jacobae* ♀ (?), *Bombus lucorum*
& *B. terrestris* seen on ♂ willow.

Very nice ground as suspected & this & Kilmacanogue marsh should yield some good things - especially sawflies & ichs. (or sculpin, later in summer).

20th April 1929. A cold day with violent NE-E wind, but much sun. MCK, MB & Miss Spiller.
Valley from L. Tay^① to L. Dan^②, WI. 11 AM till 4 PM.
Bombus lucorum & *jonellus* ♀♀ at willows at 2.
Andrena jacobae 1 ♂ on willow at 2.
A. clarkella ♀♀ frequent on ♀ willows at 2. Saw one smaller at L. Dan.
A. lapponica one very fresh ♀ on moraine at 1.
Verpa norvegica about larches at 2.
Nothing else seen & practically nothing flying owing to skinning wind blowing right down the valley.

21st April 1929. A very cold day, but almost entirely sunny, though strong wind (E) rendered collecting quite hopeless.

Head of Glenmalur, WI (at foot of Barrowe)
With E.W. Tatham, Riley, Jurgan (who ascended Lug.!) & Mansfield.

Spent most of day working marshes about the moraine but saw only a few *Bombus lucorum* ♀♀ on willows & one ♂ *Dolerus aeneus* ^{RCHB} which lit on a leafy willow bush where I was on the look out for early *Stenomidea*.

Bluebells out in Glen of Garlie in flower at N' lat Kennedy. the down on 23/4/29
~~Cuckoo Flower~~

28th April 1929. Rain all day & cold. NE wind. Drove to Clara, WI. on the chance of it clearing but nothing to be seen by a few ♀ *B. lucorum*.

ARKLOW SPRING IRIP 1929.

30th April 1929. From Arklow.

Ballyhenry quarry, WI. 1 - 1.30 pm.

Bombus lucorum + *B. terrestris* ⁽¹⁾ ♀♀. *Andrena*
nigroaenea + *albicans* ♂♂. *Halictus rubicundus*
+ *H. calceatus* ♀♀ seen. *Sphex* *discolor* 1 ♀.
Nomada marshamella 1 ♂.

No wasps or ants seen. Sunny but cold wind.

Marsh N. of Red Cross, WI. 2 pm. Sunny

Dolerus oblongus ^{RCLP.} ♂♂. AWS. Oct. 1929.

Wells' Glen, Ferrybank, WI. 3 till 4.30 pm.

Some sun but mostly cloudy + cold wind (NE).

One ♂ *Centania* sp. swept off willows: see R.C.L.P. notes of 5/2/30!
3 or 4 other things.

Saw Swifts, & heard boners & ^{Sedge Warbler} ~~whistlers~~
Spotted Wood in glen, very torn wings!

1st May 1929. A fine day, along coast with cold
east wind; but all cloudy west of Carnew.
From Kilearny Bridge, CW via Gorey +
Carnew + home.

Rt. bank of Slaney + glen below Kilearny Br., CW.
12 till 2 pm. Practically no sun + very cold.

Lasius nest in marsh: a large mound!

L. fuliginosus nest going strong in old stump as before.

Myrmica scabrinodis nest under stone.

Bombus agrorum + *lucorum* ♀♀ seen.

Andrena albicans ♂♂ + one fresh ♀ on ♀ willow.

A. rosae 1 ♀ on ♀ willow, quite fresh!

A. nigroaenea ♂♂ + ♀♀ abundant on dandelion about
bridge during only blinks of sun.

Dolerus leucotoides ^{RCLP.} ♂ clinging to willow

One small ink swept off rushes ♂ in marsh.

Cuckoo-pit +
Common Bayle
in flower

1.5.29 cont.

Marsh by stream a couple of miles West of Knock Brandon
WX (between Gorey + Carnew.) 2.30 pm. Sunny.

Andrena albicans hundreds of ♂♂. *Nomada tipica* 1 ♂

Amegilla nemata 2 spp. ♂♂: see RCLP notes, dated 5.2.30.

~~*Pteronidea*~~ there labelled 2 ♂♂ flying to willow

"*dartmoorensis*?" + "*mundus*?" AWS.

Bombus lucorum + *agrorum* ♀♀ seen.

Cuckoo heard!
Sedge Warbler
seen!

1.5.29 cont.

March in fields West of R. Bann, here road
from Gory to Carned crosses river, Sx. 3.0-4.0 P.M.
Very sunny but coldish wind mostly.

Dolerus oblongus ^{✓ R.C.P.} ♂ + ♀.

D. medius 1 ♂

D. palustris 1 ♂

2nd May 1929. A fine day with much sun.
except from noon till 3 pm when a lot of
clouds about, but very keen wind & little wet.

10-30. March between road & railway opposite Glenart Barr.
W.I. Absolutely nothing flying!

11.0 AM till 1 pm. Gold mining Valley, W.I.

Nothing seen but a few Bombs & Holly Blue
Butterfly; but on returning to car took two
surflies at foot of Moneylogh Valley in usual
marsh

Dolerus haematodes ♀ (headless!).

D. oblongus ♀

2.5.29. drove on to Clara in afternoon, but
almost quite dull till 3 pm & only sun & wind
sunny after 4 pm. Then E. wind dropped.

1-30 till 5 pm. Walked back-road from Clara
bridge to, with below Gory Burn.

Bombs lucorum aprom & pinellus ♀♀ numerous at
Vaccinium flowers; saw one or two ♀♀ of pinellus.

Psithyrus distinctus several ♀♀ seen.

Andrena albicans ♂ + ♀ seen.

A. lapponica fresh ♂ + ♀♀ seen.

Halictus rubicundus ♀♀ on sand flat.

Verpa vulgaria, rufa & rosea numerous ♀♀
mostly at flowers of Vaccinium.

A few species of ichs & one Braconid taken flying
over Vaccinium but no trace of Ichneumon reticornis
& no Nomada seen with A. lapponica.

Several Holly Blues seen & Speckled Woods common.

3rd May 1929. Down to Wexford & back.

A fine sunny day spoiled by cold wind
- East at Arklow. S.W. at Wexford!

12-30 till 2 pm. Sand pit, N. of wooden
bridge, Wexford. Here R.A.P. took ♀ *Andrena*
carbonaria on 7.7.28! & a second ♀ on 17.7.29! AWS.

Bombus lucorum only 1 ♀ seen

Andrena sericea ♂♂ in thousands; a few ♀♀ (pink)

A. nigrescens ♂♂ & ♀♀, com. *A. albicans* ♀ fresh.

Halictus calceolus, *rubicundus*, *nitidus* &

tumulosus ♀♀. [*H. punctatissimus* ♀
at Ferry carrig] ~~19/7/29~~

Sphaeroda diris 3 ♀♀.

S. verysmall, diris 1 ♀ in upper sand pit.

Homada goodwiniana ♂♂ & ♀♀, common.

Dolerus migratus 1 ♀ near gate at bridge.

Several spp. of ichs in sand pit.

3.5.29 cont.

3-30 till 4 pm. Sand pit by railway at Clonsilla
(Far too windy for collecting!) WX.

Andrena albicans ♂♂ & *A. sericea* ♂♂.

A. p. ick (Tryphonid) at Salix. ♂♂.

Prithyrus distinctus ♀ at *Geranium* ^{also 2 icks}

4th May 1929. A bad day. Collected *Dolerus* ^{nigralis, 30% & *haematodes* 10%} at *Wab's Glen*, Arklow.

5th May 1929. A fine day of cloud & sunshine.

12 noon till 2 pm. Marsh between road & rt. bank of

Armona about 2 miles above Clara Bridge, WI.

Salix fusca ♂

Dolerus aeneus ♀

Labelled
Derrylawn
G.W. AWS.

2-30 till 5 pm. Oak-woods below Clara Bridge
& sand-flat, a usual. WI. Considerably sun!

Bombus lucorum ♀♀. *B. pratorum* ♀♀ & ♂♂. *B. agrorum* ♀♀.

Prithyrus distinctus many ♀♀ seen.

Andrena albicans ♂♂. *A. lapponica* ♂♂ & ♀♀.

Halictus rubicundus ♀♀ seen.

Homada ♂♂ flying over *Vaccinium* with ♂ *A. lepp.*

Salix fusca ♀♀ seen in sand-flat.

Prithyrus quercus ♀ swept off *Vaccinium* in oak-wood.

Pimpla turionellae ♂ or ♀ several the icks.

6th May 1929. After heavy storm of rain & wind from N. & N.W., it cleared about noon & was sunny but very stormy in afternoon.

Rt. bank of Arranmore between railway & river, opposite Ballyraine, Arklow, WI. 2-30 till 4 pm. No wasps seen in marsh!

Andrena albicans ♂♂ & ♀♀ common.

Bombus terrestris 1 ♀ seen. *B. lucorum* ♀♀.

Halictus rubicundus, *calceatus*, *freysenianus* & *tumidus* seen on bank under pine trees by river.

Sphacodon divinus ♀♀.

Pompilus, red & black (probably *P. gibbus*) ♂♂ seen on bank. 1ick. taken in willow (*Trochilid*).

7th May 1929. Drove to Rathdrum, then picked up Miss Buchanan & Miss Patten, & then on to Glenmalur & ascended the Heron Glen from ford of Baravore, WI. Rain, sleet, hail, snow, & most of day till aft. When it cleared. Very deep in snow over 2,000 ft. Found the Welsh Puffin (*Meconopsis cambrica*) at foot of gully N. of & opposite the ford of Baravore.

8th May 1929. A fine day, with much cloud & local showers in afternoon.

Sand hills & part of stone-works water magdalen, WI. as before.

Bombus terrestris 2 ♀♀ seen, *jonellus*, *lucorum*, *agrorum* ♀♀.

Andrena sericea ♂♂ & ♀♀ seen in dunes.

A. picta, ♂♂.

Apis mellifera ♀♀ on edge of dunes.

Osmia annulata, very fresh ♀.

Sphex luteus, ♂♂ & several ♀♀ seen on bank.

In late afternoon stopped at Brittas Bay (South) & collected for 15 minutes.

Pompilus gibbus 1 ♀.

Two spp. *icks*.

Pezomachus

♀

9th May 1929. A glorious sunny morning, but dull & cold after noon when I was.

Very strong cold E. wind in afternoon.
Drove to Weaford & spent 1 1/2 hours in the sand-pit at N. end of the wooden bridge.
Saw same species as on 5th inst. with the addition of *Andrena wilkella* or my fresh & think I saw a ♀. Still no sign of *A. carbonaria* though been very active for some time after I arrived & before the sun was obscured by clouds.

Two spp. of iks. very common in sand pit & two small spp. taken in water on arrival.

In afternoon drove home via Blackwater - Courtown & ~~collected~~ ^{stopped} at several places, but only caught anything in a marsh S. of Blackwater, where I took two or three *Andrena* (see R.C.P. notes of 5/2/30.)
surplus at willows & 2 iks.
Took *Gnathopus perfoliatus* in sand pit.

10th May 1929. Turning rain it rained all morning but cleared in afternoon. Drove home to Dublin, but stopped at Greystones to get motor jobs done & collected for a few minutes amongst alders in Delgany channel below Glen of the Downs, WI.
Apanteles ^{Sign} Very abundant on Alder leaves.
Also 1 or 2 spp. of iks.

END OF ARKLOW SPRING TRIP.

12th May 1929. A fine day with showers (baird s:) & cool strong winds from W & NW. Sun very hot when out. Drove to "asker" at ^{near top of C. 100} Long Hill, 2 3/4 miles West of Tyrell's Pass, Co. Westmeath (WH), where collected amongst scrub on SW slope of moor from 1 pm till 3.15 during which time there was considerable sun but several showers.

Saw *Bombus lucorum*, *lucorum* (1) & *agrorum* ♀♀.
Andrena jacobae, or ?, *A. albicans* ♂♂, *A. subopaca* ♀.
Habitus rubicundus ♀, *H. calceatus* or *albipes*?

Continued over leaf →

Labelled N. R. J. T. O. W. J. N. L. O. W.
Co. WH. A.W.S.
12.5.29.

Newtonlough, West of

12.5.29 cont. Long Hill, Tyrrell's Pass, W.H. cont.

Samplings. See RCLP's notes on Empria & Blennocampa of 5.2.30!

Empria sp. ♂ near *bideni*? *Empria* ♂♂ 2♀♀ cf. *longicornis*;

Blennocampa sp. ♂ (? *lenicorneis*)

Rhyogaster viridis seen flying. *Oleria*, *aenea*, small ♂♂ ✓ RCLP.

Abia ♂ resting on Hazel leaf.

Leks.

Pimpla brunnea ♀ in scrub on moorland.

P. turionellae 2♂♂.

16th May 1929. A beautiful sunny day, after 3 days gale & showers. Very hot sun but cool wind & too strong in Deerpark for much to fly. Afternoon.

1. Poursuout-demesne, lower end. W1.

2. " " upper end, not far from deer park gate.

3. P. Deerpark, by stream, gate to saw mill.

4. P. demesne, on return in evening, 6 till 6.35 pm.

Bombus lucorum & *agrorum* ♀♀ seen.

Andrena jacobae ♂♂ & ♀♀, *A. lapponica* ♀ in "louse-shoe" pit by east window, *A. albicans* ♂♂, seen.

16.5.29 cont. Poursuout cont.

Sphurda divisa ♀ on Daisy at 3.

Nomada bipida ♂♂ & ♀, very fresh at 3.

N. marshamella ♂♂ & ♀♀ at 1 & 3.

Salix fusca, large ♀♀ at 3.

Oleria aenea ♂♂, *O. gemmeri* ♂♂, *O. bimaculata* ♂♂ & ♀ all at 3, *aenea* also at 2 & 4. ✓ RCLP.

Thrinax macula ♂ at 2.

Athalia lineolata ♀♀ at 1 & 3.

Pachynematus scutellatus ✓ RCLP 1 ♂, ♂♂, ♂♂ seen at spruce, at 3 near big log in swamp. ~~at 3~~

Lygaeonematus sp. ♂ = "*elictus*" rather than "*saxosus*" see R.C.L.P. in notes of 5.2.30. No doubt this is the 2nd ♂ taken at spruce at 3 as noted above.

Pimpla turionellae ♂♂ at 2 & 4.

P. maculator ♀♀ common at 1 & 2.

Ichneumon filicornis ♂♂ common at 3.

Sp. with red thorax seen on fir tree at 4 on return journey, but missed!

16.6.29. In the evening of this day I found a drowned ♂ *Hylaeus communis* in "tub" in garden at Mayfield, Harold's Cross, DU. New to Ireland! ✓ RCLP. = notes dated 5.2.30!!

19th May 1929. A glorious Day! with some high fleecy clouds at times dimming the sun & a keen E. wind in early part.

Drove to Clara, WI, there visited the oak woods below the bridge, to sand-flat, as usual.

11 AM. Stopped at bank beyond Sallyhenry, but sun obscured & cool wind. Took here one ♂ *Dolerus oblongus* ^{VRCLP} & several iks. collected in motor during drive, also 1 ♀ *Melanichneumon sanguinator* taken in motor near Kilmacanogue, VI.

11.30 AM. Stopped before marsh & at Garryduff Cross Roads, E. of Brynham, WI, but again no sun & cool wind. Took here several ♂ *Dolerus*

Also some iks. & one ♀ *Blennocampa* sp. swept off rushes & in marsh at foot of small channel NE of cross road.

12 noon till 5 pm. Perkins (notes of 5.2.30, say this is *B. rubicunda*?

7 seen
Odynerus pictus

19.5.29 cont. Clara cont.

12 noon till 5 pm. Oak woods (1), sand-flat (2) and *Osmunda* swamp behind latter (3) on left bank of Annamore, below bridge. Many willows in full flower, some not out yet.

Bombus lucorum ♀♀ + 1 ♂ (on willow) seen, *B. jonellus* ♀♀ + ♂♂.

B. agrorum ♀♀. *Psithyrus distinctus* ♀♀ seen.

Vespa rufa & *ulgaris* ♀♀ seen.

Andrena ^{*lappacea* (fide RCLP)} ~~*sp.*~~ 1 ♂ very common on willows at 2.

Andrena sericea ♂♂ + ♀♀, *A. albicans* ♂♂ seen at 2.

Halictus sp. seen on sand-flat as usual.

Homocidus tipidis ♂♂ + ♀♀ abundant.

Sphex very abundant on sand-flat!

S. divinus, *S. affinis*, & *S. hyalinatus* (?) 3 ♀♀ { See RCLP notes dated 12.2.30! }

Chrysis ignita seen just below bridge. 1 ♂ for 1929.

[No sign of *Arge metallica* in *Osmunda* glade at 3]

Dolerus ♂♂ just below bridge. *Pontania* sp. ? 4 ♂♂ (see RCLP 12.2.30). *Pontania leucosticta* 3 ♂♂ ^{VRCLP}. *Dineura virididorsata* ♂ (in glade?). *Eucera sabuleti* ♂ & ♀ (RCLP). *Pontania* sp. (like *bella*) RCLP. *Psithyrus melanocephalus* ♀ (VRCLP), amongst *Vaccinium* ♂ at upper end of sandflat.

Braconid: *Ichneutes reunitor* Nees, ♂ (? at willows at 3).

Ephialte tenuiventris ♂ on birch at 3. "bored!" fide Roman No. 79.

Pimpla ^{*inquisitor* Scop. (fide Roman)} ~~*scutellator*~~ *Hardy* ♂. ? *Rene* ♂. *P. ovigera* ♂.

Took 2 *Silpha* 4-*punctata* on willow at 3!

21st May 1929. A fine day after very fine week-end, but spoiled by terrific wind in aft.
 Afternoon: Bohemabruena, DU. 2-30 till 4-30.
 Strong & violent wind struck horsehair marsh on right hand side of road 200 yards below lower dam.
Dolerus haematodes 1 ♂, a black ♀? same sp. also seen.
D. dubius ♂♂ common, ♀♀ a few. Then seen seen this species in the other marsh across river!
D. bimaculatus 20 ♂♂, 1 ♀ (? taken on wet slope above marsh).
Loderus vestigiatus ♂♂, typical form, common.
 1 ich. & 1 braconid.!

* 26.5.29. [Obachony took ♀ *Eucera sabotei* & *Trichocampa* sp. which I took at St Anne's, Glenties, DU. on 26.5.29!]

29th May 1929. aft. late. A sunny day, but very windy (E).
 Dunskenphlin, Co ME.

(1). "Boj" at Blaken. Here S. Stokes gets Irish Elks.

(2). Lake site at The Bush, S. of Dunskenphlin Work House.

Andrena jacta ♂♂ at 1 & 2. *Halictus calceatus* & *tumescens* at 1.

Dolerus nigratus ♂♂ at 2. *Phaenocarpa myosotidis* ♂ at 1.

Empria sp. (? *tridens*) ♂ at 1. *Tomostethus luteiventris* ♀

Lich. nortzi at 2, but one minor abdomen at 1. One little ♂ has antennae

* I am laid up during perfect week-end of 25th & 27th May, but saw many *Crabro rufus* in garden (1st 1929) on 26th!

31st May 1929. Afternoon. Very hot sunny day! Breezy.
 Bailly, Co. DU. Cliffs below high Mary's &.

Bombus agrorum ♀♀ seen. *Psithyrus barbutellus* ♀ seen.

Andrena jacta ♂♂ & ♀ seen. *A. vitellina* ♂ seen on *Geran. sanguinea*

Halictus rubicundus ♀ seen. *Sphaerod. (? affinis)* ♀ seen.

Chrysis ignita seen.

Teretodopsis ♂

Large red-bodied Tryphonid on cliffs: 4 ♂♂ = *Cataglyphis*!

2nd June 1929. A very warm day but cloudy & often drizzling rain. Very little sun & few things out.

Poorhouse - from 11-30 till 5 pm. 1 = demesne in morning; 2 = deer park; 3 = upper demesne in evening.

Bombus lucorum ♀♀ & ♂♂. *B. agrorum* ♀♀ & first ♀ seen.

Vespa rufa, *rufaria* & *norvegica* ♀♀ seen. *Pompilus* *flaviventris* ♂

Andrena jacta ♂♂ & ♀♀ at Hawthorn. *A. caprea* ♀ seen

Crabro rufus numerous ♂♂ seen about logs at 2.

Leptothorax acervorum ♀♀ on stump at 2.

Dolerus bimaculatus ♂♂ & ♀♀, *D. gemmifer* ♂♂ & ♀♀ at 2.

D. rufus ? ♀ at 1; and ? another ♀ at 2. *D. picipes* ♀ at 1.

Brown cocoon taken in rotten log at 2 from which emerged *Pompilus rufiventris* on 21.6.29.

2.6.29 cont. Povernment cont.

Pachyprotasis rapae ♀ at 1. *Rhyogaster viridi* ♂ at 2.

Salandria serra ♀ at 1. *Salandria stramineipes* ^{✓ RCLP} ♀ at 2.

Pachynematus obductus 2♀♀, one each at 2 & 3 (EOM + AWS 1000L)

Strongylopterus lineatus ♀♀ at 2. *Strombosus delicatulus* ♂♂

Ametastegia equiseti ♂ ✓ RCLP. ♂♀♀ at 2.

Lissonota maculata ♀ at Log at 2.

Ischnura filicornis ♂♂ + ♀♀ common about logs at 2.

Also many spp. at 2 & some at 1 & 3.

Alomyia debellator 1♂ at 3 (1st 1929!).

7th June 1929. afternoon. A fine day after wet week, warm & little wind & some very hot sun. Drove with Kester & to Liffey Head, C.W.I. & collected beetles in pairs on bog but saw only one big macropteran: - *Lissonota* ♀ ^{= *magdalenae* Bankard} ^{✓ RCLP} ^{Roman No.} *aptes* *arctius* very abundant. See note on this ♀ from Dr. Roman on p. 100.

8th June 1929. Evening, after terrific thunder storm, I took a ♀ *Cladonia* *difforme* (very darkening, 1st largest I have ever seen! RCLP) in W.J. Williams' garden (on Ginkgo!) at Dарты Rd., Rathgar, Du.

9th June 1929. A fine day but only short sun bursts & a strong cool W. wind.

Worked marshes & scrub &c. in both banks of R. Slaney below George's Bridge (Ballyhubbuck, Glen of Inaal) C.W.I.

Also took a few on left bank above George's Bridge (3)

1 = left bank below & 2 = right bank below bridge!

Bombus lucorum & *agrorum*. ♀♀ only. Former rare, latter common.

Andrena jacta ♂♂ seen. *A. wilkella* ♂♂.

A. angustior a very fresh ♀ taken, heavily pollen laden, on flower of *Galatella palustris* in marsh at 1.

A. fucata fresh ♂♂ + ♀♀ frequent.

Halictus albipes & *tumalorum* 1♀ each.

Homocidus ruficornis? 1♂ seen.

Forsteria mystaceus 1♀ at 2 in scrub.

Pemphredon lapidaria shuckardi 1♂ on road at 2.

Crabro dimidiatus 1♂ at 3, sent into pocket of my coat!

Dolerus 2♀♀ at 2. *D. lineatulus* 1♂ + 1♀ at 1, ♀ at 2.

Empria sp.? (✓ RCLP) 2♂♂ + 1♀, mostly at 3: see RCLP's notes of 12.2.30.

Salandria flavus ♂♂ at 2. ^{✓ RCLP} *S. serra* ♂ at 2

Tenthredin ♂♂ + 1♀ sent to Miss Scott at 1, 2 & 3.

Tenthredo areolata ♂♂. *Tenthredella meromela* ♂♂ 1st 1929.

16/6/29 cont. Slade Brook cont.

Stenopogon lineata ♀♀ very many on broken buds.

Selandria stramineipes ^{VRCLP} 5 ♀♀ on broken.

Phaenocarpa rubicincta ^{VRCLP} ♀ on willow in Hazel scrub.

Pimpla hibernica small ♀ ?

Chistopyga incitator ♀

Glypta ♀
= n.sp. ? fide Roman No. 84.

Homocidus simulans Say 19 by Slade Brook co-type! A.W.S. 1940.
formerly thought to be *incisus*. Thoms. & Roman agreed to this determination.

16/6/29. In the evening I found a drowned ♂ *Hydraea*, common in tub in garden. Never before seen at "Mayfield" or indeed anywhere near Dublin!

17th June 1929. Spent late evening, 7 till 8-30 along E. side of lower reservoir in Glensasmole, DU. Where John S. Barrington reported *Cephalanthus ensipetis* & saw three fine plants of this orchid. Two stations abundant & freshly hatched on slopes of lower dam. Collected *Dolerus gresseri* ♀, *Lodrus vertiginis* ♀, *Tom. laticinctus* ♀, *Tenthredopsis*

& about a dozen sp. of ich.

18th June 1929. A dull very warm, moist day. Drove L.S. from L.S. to Dunshaughlin, & visited Lough & site of former crannogs, Co. ME. Collected 3-30 till 6 pm. about the drains & marsh near the crannogs & in Lough demesne.

Tenthredopsis

Selandria flavipes ^{VRCLP} ♂

Ametastegia glabrata ♀ VRCLP

cont.

Stellaria palustris seen in past swampy fields there.

18/6/29 cont. Lagore, ME, cont.

Collected many icks. & small braconids.

Perithous meditor ♀ at willow. Lissonota maculata ♀ at stump.

Chasmodon unep. ♂♂ & ♀♀ very common on vegetation in drains

19th June 1929. A windy day becoming fine & sunny too late, very hot & only short sun bursts. Aft. 3.0 till 5.0 pm. East side of Lough reservoir, Glenside, DU.

Loderm vestigiatus ♀♀, Loderm bimaculatus ♀

Dacnusa luteiventris

Tenthredopsis ♀♀. Tenth. lineata ♂♂ & ♀♀.

Tenth. maculata ♂♂ & ♀♀. Ametastegia glabrata ♂. ✓ RCHB.

Odynerus parietinus 10♂ by river. Pteronidea myosotidis ♂ ✓ RCHB.

Cont.

19/6/29 cont.

Astiphrona alaria ? ♀ swept by river just opp. Bradley's. Chasmodon luteiventris Hal. ♂.

21st June 1929. A fine day! Late evening, 6 till 9 pm. Down to Ponlaphuca, KD & WI, where collected with the Liffey survey party, but was going in my little in my line out & most succeeded below taking { Palmer or Oshanny. No more sweeping.

Chelopygus lucidus Hal. ? A ♀ swept off ^{ash} tree at dry channel S. of Ponlaphuca, ^{WI.} & below bridge, at 9.30 pm.

by E. O'H. { Took many larvae of Proctos. septentrionalis on willow, birch & alder on KD bank: from these emerged, ca. 13.8.29, 27♂♂ & 1♀, all of which were black except 2♂♂.

Tenthredopsis ♂ } Taken on Kildare side of gorge below fall.
Selandria stramineipes ^{✓ RCHB.} ♀

21.6.29. Tryphonid ick. hatched from unknown sawfly larva taken in Co. WI. or Co. DU. during 1928.

21.6.29. Mesochorus ♀ taken by A.A. Linsay. in St. Pat. Dumas Hospital, Dublin.

23 June 1929. A glorious hot sunny day, with strong, fresh W. wind, after a wet day & dull damp night.

Devils' Glen, W.I., from above.

1. = Upper part above gorge. 2 = Glen proper.

Bombus agrorum, lucorum, terrestris (only on Cow Parsley!) ♀♀.

Vespa vulgaris ♀ seen.

Andrena fucata 1 ♀. A. anderssoni 2 ♂♂ at 1.

Halictus freyermayeri 1 ♀ at 2. H. calceolatus ♀ at 1.

Sphex ♀♀ seen at 1 (probably affinis & hyalinatus).

Hyalaeus confusus ♂ at top of 2, also zig-zag.

H. hyalinatus small ♂♂ at 1 on stones.

Pompilus nigriventris seen at top of 2.

Gorytes mystaceus ♀ at 2.

Crabro dimidiatus ♂♂ & ♀ common at 2, 1 ♀.

" cetratus 1 ♀ resting in log by path above upper ledge.

"Pachynematus xanthocarpus wet. ♂" RCLP. in list of 12.2.30!

Dolerus niger ♀ at 2? Selandria rufa ♂ at top of 2.

Atelidius lineolatus, Tenth. lineata & mesomela, Stenom. delicatula seen.

Strongylogaster lineatus 1 ♂, ♀♀ at top of 2.

23/6/29 cont. Devils' Glen cont.

Ephialtes tuberculatus 2 ♂♂, 2 ♀♀ fly over small Ash at 2.

Pimpla ♀ at 2.

Merisus murinus ♀ at 2.

[A ♂ Automolus albipittatus almost certainly seen by road side of path.]

A. aglaia out

26 June 1929. A glorious sunny day, but keen E. wind.

App. 3.0 till 5.0 pm. Stumps & about foot of Altidore

Glen, Co. WI.

Megachile versicolor ♂. ? M. villosa ♂ seen.

Bombus lucorum, terrestris, lapidarius 1 ♀ (first 1929), all ♀♀.

Prithyrus rupestris 1 ♀. B. tartareus ♀.

Andrena albicans 1 old ♀ on Cow Parsley. A. jacobae 1 old ♀ on same.

A. hilliana ♂♂ abundant & a few ♀♀. A. anderssoni 1 ♀ on Cow Parsley.

Halictus rubicundus, H. tumulorum ♀♀ seen.

Vespa vulgaris ♀♀ at mud-dust heap.

Pompilus nigriventris ♂ & ♀ seen. Ceropalus maculatus ♂ & ♀

Crabro dimidiatus & leucostomus seen.

Cont.

26/6/29 cont. Altidore cont.

Forus affector ♀ taken at dump.

Pteronidea myosotidis ♀ ^{Y.R.C.B.} swept off nettles on road!

Pimpla robusta ♀ at thistle

Pimpla near forge, KD=1, W side = 2. Above fall.

Evening 6 till 9-30 pm. A hot evening

28th June 1929. but forge mostly in shade

Ringlet butterflies out!

Odynerus parietarius ♀ at 1.

30th June 1929. Very windy (NE) but hot sun all day after 10-30 AM. 11.30 till 5 pm.

Upper Liffey at Altidore just bridge, Co. WI.

Bombus agrorum & *lucorum* ♀♀ seen, also a few ♂♂.

Andrena wilkella, ♀. *A. cineraria* ♂♂ & ♀♀, some

A. tarsalis ♂♂ & ♀♀ - *A. vitans* ♂♂ & ♀♀

A. subopaca ♀♀.

Nomada ruficornis ♀ ? seen. *A. flavoventrata* ♀.

N. obtusifrons 2♀♀. One with two pairs of orchid pollinia on its clypeus.

Halictus ♀♀ of *albipes* & (or) *pygmaeus* seen.

Vespa ♀ seen.

Crabro varius ♂♂, 1♀. *C. palmipes* ♂♂ (2♀♀?) ^{Ante on swept in marsh above footbridge.}

Pompilus nigerrimus ♂♂ & ♀♀. One ♀ dragging home a spider (Lycosid, very young ^{id. S.R.P.B.}) was attacked by a ♀ *Formica fusca* & a hot fight ensued, both rolling over & over in each others clutches & away from the spider, which was subsequently captured by the *Pompilus* & taken home.

Trichosoma lucorum 3♀♀ on birch.

Cimbex ~~parvipes~~ 1♀ on birch. *C. femorata*!

Tenthredella linola ♂♂ & ♀♀ seen. *T. atra* ♂♂ & ♀♀ ^{✓ 19}

T. ferruginea ♂♂ & ♀♀. *T. balteata* ♂♂ & ♀♀ common.

30.6.29 cont. Athdown cont.

Rhyogaster viridis ♀ seen. Tenthredo arcuata.

Pachynematus "diaphanus" ♂? swept in marshy spot.

Dolerus aeneus ♀. Pachyprotasis rapae ♀

Pimpla tunnellae ♀. P. maculata ♂♂.

Meniscus catorator ♀ on head of grass, at N. end of bridge.

Leionota bellator ♂? (1 seen 1929.): rather L. maculata-looking!

Lissonota ♂, black & red abd.

Euryproctus defectus ?

2nd July 1929 (evening: 5 pm till 8 pm).

R. hiffy at Athdown footbridge, Co. WI. as on 30/6/29.

No aculeates seen except a couple of Bombus

lucorum + B. agrorum ♀♀. Dull & warm!

Amblyteles oratorius 2 ♂♂ on birch

Tenthredella laticincta, viridis + atrata.

Rhyogaster viridis ♂♂

Tenthredo arcuata ♂♂ + ♀♀.

Amblyteles oratorius ♂♂ on birch.

Phyosphincta madida Hal ♀ - clipeata Hal ♂

Phytodietus ♂.

6th July 1929. A dull cold day with NW wind.
Annual ascent of Loughguish, Co. WI.,
with "A.S.V."

Except a few ichneumonids & braconids taken after
tea by sweeping at Ballinacorney & Ouchony
& myself, no hymenoptera were seen during
the day except a single ♀ *Myrmica scabrinodis*
taken by Ouchony at the head of North Prison
at ca. 2,800 feet under a stone. This ♀ I think
was one carried up during a "flight" the previous
year which had hibernated there during the
winter; there was no sign of a nest or workers.

Gyriscampa foveola 1 ♀ (L.A.W.S. & Nixon).

7.7.29. Athdown, WI. cont. Sawflies as before but in addition.
Pamphilius raperi ^{R.C.L.P.} ♀ under birch leaf above bridge

Larvae of *Ammonomatus*? collected on willow (*S. avicula*!)
1st emerged 30.4.1930.

7th July 1929. A bright morning & a fine evening
but no sun between our arrival & 4 pm.

4.0 to 5.0 pm mostly sunny. With Palmer!
Athdown, Co. WI. (left bank of river at footbridge
mostly). Also some ichneumonids collected by saw-
dust heap near Kippure Lodge (then labelled
"K" in back of label) & *A. tarsata*, *Salix exaltata* ♂
& *Pompilus nigerrimus*.

Bombus agrorum ♀♀ & ♂♂. *B. lucorum* ♀♀ & ♂♂.

B. hortorum 1 ♀ (Palmer). [*B. muscorum* ♀ flew into motor
about Tallaght on way home!].

Andrena cineraria ♀♀, *A. tarsata* ♂♂ & ♀♀.

A. citana ♂. *Habitus praeputius* ♀.

Pompilus nigerrimus ♂ seen. *Crabro varius* ♂♂

C. palmipes ♂♂. *C. dimidiatus* ♀ (Palmer)

Selandria morio ♀ ^{R.C.L.P.} on moor S. of river. *Pamphilius raperi* ♀ on birch!

P. fuscus pumila 2 ♀♀ on birch! ^{R.C.L.P.} *Pachynematus umbripennis* ♂ ^{R.C.L.P.}
Pimpla maculata ♂♂ & ♀♀. *P. ruficornis* ♂ & ♀ large & dark
very small. cf. *P. concolor* Kr!

Physothrips taberosa ♀.

"*Oteronidea cameroni* dark var. or *C. vittatus* (dark not visible)" 1 ♀

7.7.29. 6.5.1930 from larvae taken on *Salix*: fide R.C.L.P. in litt. 17.4.31.
In April 1931, when I saw *O. cameroni* at Newry, I thought it was a
dark var. of this species, might be *O. vittatus* (dark not visible) or a
new species! But some of the material I collected in 1931
when I saw 5 ♀♀ of the same form as the one I saw in April 1931
to *O. cameroni* (see R.C.L.P. in litt. June '31)

ARKLOW TRIP: JULY-AUGUST, 1929.

12th July 1929. A glorious day, no clouds, no wind.
Left Dublin at 2.10 pm; reached Arklow 4.0 pm.
Worked sand dunes at N. end of Kynock from
4.30 till 6.0, & ditto plus next bay from
7.0 till 9.0 pm. More out at the later period!

Bombus lucorum ♀♀ common, nothing else seen
or no other *Bombi*.

Megachile maritima ♂♂ common, a few ♀♀ seen.

Colletes picistyrina ♂♂ & very few ♀♀.

Sphex luteus 1 ♀ seen digging hole to hold my leg,
Noctuid caterpillar: carried out loads of sand
left under head with front-legs about 1/8" cube;
came out at intervals of 5 to 10 seconds along
backwards & with great trouble. How she
carried the soft sand I could not understand.
Emptied her load not more than 1 to 2 inches from
hole which was vertical, nearly 1/2 inch in diam. &
on flat site.

Pompilus plumbeus ♂♂ & ♀♀. *P. sp.* (? *gibbus* ♀ seen)

Tachysphex pectorator a few ♀♀ seen.

Cretus versicolor 1 ♀

12.7.29 cont.

Hedychridium ardens 1 taken, usual seen.

Paniscus testaceus, var. *melaniceps*, large ♀, flying ^{at 5.30 p.m.} in shade of hill & under bracken near ^{2nd point.}

Lissinota

13th July 1929. A fine day, hot sun & strong cool breeze
after some clouds had covered the sun till nearly 1 pm.
Rathdrum, WI. By station to Annadale, on right bank of river.

Bombus lucorum ♀♀, *B. agrorum* ♀♀. *B. hortorum* ♀♀.

B. jonellus 1 freshly emerged ♀ seen.

Psithyrus barbutellus ♂♂ & ♀ seen.

Megachile villipicta 1 ♀ seen at Annadale post bridge.

M. vernalis 1 ♀ seen at E. end of same, by stump (left bank).

Andrena fucata, var. ♀♀. *A. cineraria* 1 ♀ seen taking

A. villosella ♀ seen. *A. coctana* ♂♂ & ♀♀ seen.

A. spp. ♀♀ seen (probably *subopaca*, or *minutula* 2-1 brood).

A. pygmaea ? 1 ♀ seen 2-1 brood.

Halictus rubicundus 1 very fresh ♂ seen.

Halictus spp. ? (♀♀ probably *tumulus*, *frugiperda* &
nitidus seen).

13.7.29 cont. Rathdun cont.

Nomada stusiformis ♂♂ & ♀♀.

Vespa rufa & *rustica* ♀♀.

Odynerus 3-jasciatus ♀ (Thickery) near bridge.

Crabro dimidiatus ♂♂. *C. chrysostomus* 2♀♀ near bridge.

C. leucostomus 1♂, *C. varius* ♂^(C. palmeri?) & 2♀♀. *C. podapicus* 2♀♀ on

Just Villers near station [no *C. aphidius* seen!]

Pemphredon shackardi, large ♀. *P. lyncus* ♀ seen.

Phygadeuon on *Arum* bridge.

Stenomacrus delicatulus ♀. *Stenomacrus lineatus* ♀♀

Selandria morio ♀^{✓ RCLP} on bramble (EOM). *Nematus* *jasciatus* ♂^{✓ RCLP}

Abia fasciata ♀ on *Cornus* near station

Pimpla instigator 4♂♂ (one with pale stigma) near station

P. ovivora var.? ♀ near station

P. oculator 2♀♀.

Pimpla sp.

Glypta mensurator ♂(?) & ♀(?) both very small.

Phytodietus ♀. Ph. ♀.

Limona bellator ♂. *L. exarabunda* ? ♂.

not found in flower

13.7.29 cont. Rathdun cont.

Chelonus

14th July 1929. A blazing hot day, never a cloud!

Clone, by the R. Bann, 3 miles above Enniscorthy, WK.

Bombus lucorum & *agrorum* ♀♀ seen.

Megachile centuncularis ♀ entering hole in cliff in sand-pit.

Colletes montanus ^{✓ RCLP. See his letter & notes dated 19.2.30.} ~~*depressus*~~ abundant colonies on the

parapets of Scarabole Bridge on the Slaney,

discovered before our arrival by R.A. Phillip.

C. depressus ♀♀^{✓ RCLP} in sand-pit. Rare taken on 18/7/27.

C. montanus 1♀ ✓ RCLP.

Hybaeus hyalinatus ♂ + ♀. in sand pit.

Andrena pumila ♀♀.

Nomada ruficornis ♀ seen by Bann bridge, as in 1927.

Halictus rubicundus ♂♂, *H. calceatus* & *albirostris* ♀♀ abundant.

& *H. rubicundus* & no doubt other spp. but not looked for.

Sphex affinis ? ♀♀^{S. divisa, ♀♀} seen. *Sph. divisa* very small, worn ♀^{✓ RCLP} in sand pit (Phillip).

Crabro aphidius & *C. tibialis* 1♀ each taken by R.A. Phillip on

alders on left bank of Bann just above bridge at 5 pm.

14/7/29 cont. Clons, WX cont.

Cobra peltaria ♂♂ & ♀♀ in sand pit. *C. hypostoma* ♂♂

C. vari ♂.

Mellinus arvensis ♂♂ abundant.

Odynerus sinuatus 1 ♀

Myrmica maculosa 1 ♂ (Phillips).

Salix exaltata ♂♂ abundant, ♀ seen. *Compilus gibbus* ♀ (Phillips).

Eucampa orata ♀ on alder ♀ seen (Phillips).

Amastigia glabrata ♂ & ♀ seen.

Tenthredo areolata. *Tenthredella atra* ♀ (Phillips).

Lissonota bellator 1 ♀

Glypta elongata 1 ♀. *Glypta bifoveolata* 1 ♀

15th July 1929. A cloudless day, with very hot sun & gentle cool NE breeze.

Sandhills S. of Cahoon St., WX.

Bombus lucorum ♀♀. *B. hortorum* 1 ♀ on *C. Soldanella*.

B. distinguendus ♀♀ seen on point near dunes.

Megachile maritima ♂, ♀ seen.

Colletes montanum ♂♂ & ♀♀ common.

C. picistigma ♂♂ & ♀♀ common.

Hyloea minutus, 1 ♀.

Halictus rubicundus, *villosus*, *nitidus* & *punctatissimus*

♀♀ on S. side of point, nesting in clay.

Sphaerocera affinis 3 ♀♀, with last.

Verpa rufa ♀ seen.

Pompilus plumbeus ♂♂ & ♀♀ abundant.

P. rufipes 2 ♀♀, one very large, on *Euphorbia*, N. of track.

Tachysphex pectinipes ♂♂. *Cerophala maculata* abundant.

Hedychridium ardens frequent.

Oxytelus argentatus ♂ & ♀ then stripping the old *Helix*

record of *Haliday* n.s. On *Euphorbia*

O. uniglumis ♂. On *Cnicus arvensis* Rare track record

Crabro werneri ♂♂ & ♀♀. Abundant.

15.7.29 cont- Balore, 4x. cont.

Trichocarpus dreseni ^{VRCLB.} ♂ ♀ 12. 3. 1954 (A.C.)

Allantia cinetia ✓ RCLP
OT.

Tenthredo areolaris 9 juv on cawwrt.

Abia candens, ^{✓ RCLP.} ♀ on basket.

Scandria temporalis ^{✓ RCLP.} ♀♀ in hatching, near + N. of track.

Bladus pectinicornis ^{var. p.} ♀ on bracket S. of track, with Abia.

Banchus volutatorius ♂. Lissonota ♀ (7 irrigua Mon. = nitida Sldg.) } (Roman No. } says spp. app.
synonym, but
not known then

16th July 1929. Sunny but blowing very hard from S. after a depression had arrived during the night. Very little at boat & sandhills N. & S. of Kilnichael Point, former in Wicklow⁽¹⁾ latter in Wexford (2)

Bombus lapidarius ♂♂ common in 1 + 2. B. lucorum ♂♂

B. hortorum ♀♂. (No B. agrorum seen!)

Colletes picistyrina abundant - 1 + 2.

C. montanus ^{✓ RCLP.} 1 ♂ young, on Juncus in 2.

16.7.29 cont. Kilnichael, SI & WX cont.

Compilus plumbeus ♂♂ & ♀♀ abundant in 1 & 2.

Tachysphen pectinipes ? seen in 1.

Andrena sericea ♀♀ not very common seen in sand hollows
in 2.

Small testaceous Brachid naup of (? broken or lost?)
in 2.

Lks. taken in nest behind dune at 2.

17th July 1929. A rather wild day, but a good deal of hot sun & very warm, after a shower at 11 AM. Meeting of the Satons, Arica, W.I. right bank of Arica, one for a mile above actual meeting!

Bombus agrorum ♀♀. B. lucorum ♂ (first 1729) + ♀♀.

B. zinnella ♀♀. B. hostorum ♀♀.

Psithyrus distinctus fresh ♂♂. B. barbutellus ♂♂.

Andrena denticulata ♂♂ (♀ seen near Glenart-]

A. coitana ♂♂ & ♀♀.

Haliastur rubicundus ♂♂ abundant - & fresh.

Nomada obtusipennis 1 ♀ seen.

49.

17th July 1929 cont. Meeting of the Gators, WI cont.

Crabro dimidiatus ♂ & *C. leucostomus* ♀.

C. caripon ♀. *C. rufus* ♂♂ seen.

C.

Caliroa limacina ^{✓ RCLP.} ♀.

Pimpla viridis ♀. *Glypta bipunctata* ♂?

[On this date, 17.7.29, R.A. Phillips took a 2nd very young ♀ *A. carbonaria* at WX]

18th July 1929. A poor day, windy, misty rain, hot. Drove round Tara Hill to Gorey, thence to Hollyport, thence Wicklow Gaps to Ballinglen & Coolalug oak-wood, then on through Aughrim to Coats Bridge & back to Glone House, round top of Gold Mine Valley, down via Monaplogh to Wooden Bridge & home.

12 to 2.0 pm. Oak-wood on left bank of R. Barne at Kilnichael Bridge, below Hollyport, WX.

Very good ground, on a good day, for ticks & such.

50.

18.7.29 cont. Hollyport cont.

Arge ustulata ♀ sitting on birch leaf.

Andrena cortana ♂♂ & ♀♀. & a few common aculeatis!

18.7.29 cont. Monaplogh & Coats' Bridge, WI. 4 pm.

19th July 1929. A hot day, with a good deal of mist & sun, very stormy along coast & exposed places inland.

Deputy's Pass, WI. 1 = left on N. side, 2 = right on S. side.

Bombus lucorum, *javellus*, *hortorum*, *agrorum* ♀♀.

Psithyrus distinctus ♂♂ & ? ♀♀ seen } *B. terrestris*, fresh ♀ seen.

Andrena fucata seen ♀♀ on Rubus. *A. cortana* ♂♂ & ♀♀.

Halictus rubicundus fresh ♂♂. *A. pygmaea* ♀ seen.

Sphex hyalinatus ^{✓ RCLP.} ♀ fresh at 1.

Nomada apterigera ♀ at 1.

19.7.29. Deputy's Pass cont.

Varpa rufa ♀♀.

Odynerus sinuatus ♀ at bored stump at 1.

Ageria (variegata?) ♂ seen at stump at 1.

Psenulus pallipes ♀♀ at oak shoots at 2.

Psalloecum nemilicornis ♀ at 2.

Pemphredon richardi ♀

Crabro caripum ♂♂ & ♀♀ at 1 (& 2).

" *vagus* ♂♂ & ♀♀ at 1 & 2.

" *varius* ♂ at 1.

Trypoxylon clarivorum many ♂♂ & ♀♀ at old trees
stumps in the ruined "garden" at 1.

Second Irish record!

Foenus affectator ♀ seen on same stump, ? any
connexion.

Larvae of *Stenomacrus ferrugineus* taken on willow: 2 ♀♀ em. ^{Rec'd. on} 20.8.1929.

Perithous mediator ♀ at 1. *Schizopyga nigra* 1 small ♂.

Lissonota femorata ♀♀ at stump in "garden" at 1.

L. palpalis ♂♂ abundant at oaks, thistles, etc.; also 2 ♀♀ same sp. ^{See Roman} Nos. 93 & 94.

Pimpla oculator ♀. ²⁹⁹⁰² ♀

Glypta mensurator ♀ at thistle head. *G. varicosa* ♀.

Lycorina triangulifera ♀ ? where taken. First Irish record!
= *Lycorina triangulifera*.

19.7.29. Deputy's Pass cont.

Andrytes ruficornis ♂ at 1.

Braconid: *Centone mandibularis* Sox. (250x), probably on oak near shore (Pygmy) ^{seen at tower (NW) corner of the old garden. AWS 18/2/1932.}

20th July 1929. Very windy & not much sun: morning.

11.30 till 2 pm. Sandhills N. of Kynoch's Arklow to 2nd pt. ^{W.I.}

Bombus distinguendus ♀ seen at 2nd point.

Colletes piceitarsis ♂♂ & ♀♀.

Hyalea minutus 2 ♀♀ on wild carrot, S. of 1st point.

Megachile viciae 2nd bay.

Sphex luteus (♂?) seen in 2nd bay.

Tachysphex pectinipes

Pompilus plumbeus & *beropalus maculatus*

Crabro ruficornis

Hedychridium ardens.

20.7.29 morning cont. Kynock, Arkelow, cont.

Allantus cinctus ♀. Cladius pectinicornis ♀^{✓ RCLP.}

Leiometa parallela ♀

Tryphon on carrot.

20th July 1929 cont. Afternoon & early evening.

5 till 7.30 pm. Sandhill at Kilgorman, WX. (with Palmer)

Nothing new in aculeate line seen!

Common

Common

21st July 1929. A very hot day with sun till 3 pm.

Sandhills, S. of Balore Pt. (as before) WX. With J.G. Palmer.

Bombus lucorum ♀♀. B. hortorum ♀♀ + ♂, B. lapidarius ♀♀.

B. agrorum ♀♀ rare, B. muscorum 1 ♀ behind dune (P.).

B. distinguendus ♂♂ (+ ? ♀♀ seen) in field above point.

B. mellis ♂♂ + ♀♀.

Andrena sericea ♀ = sand hiller.

Halictus rubicundus, H. villosulus ♀♀ common.

Sphex affinis ♀♀ at point.

Colletes picistylus + C. montanum ♂♂ + ♀♀.

Vespa vulgaris + V. sylvestris ♀♀.

Compilus plumbeus abundant.

Ceraphron maculatus abundant.

Tachysphex pectinipes ♂♂ + ♀♀.

Crabro vesmali abundant. C. podopneum behind dune (P.).

Mellinus arvensis abundant.

Sphex luteus ♀ seen (P.).

Hedychridium ardens 2

Oxytelus argentatus ♂♂ + ♀♀ on thistles & spurge.

O. unigeminus ♂♂ + ♀♀ with last.

Tenthredopsis ♂♂ + ♀ on bracken above pt.

Allantus cinctus ♂♂^{✓ RCLP.} common amongst bracken in dunes.

Selandria temporalis ♀^{✓ RCLP.} in bracken on dunes.

Emphygus pallipes (= granulariae) ♀^{✓ RCLP.} in bracken on NW edge of big hollow.

Cladius pectinicornis ♀^{✓ RCLP.}

21.7.29 cont. Calore cont.

Bombus ^{*volatator* ♂ Roman No. 115.} ~~*terrestris*~~ ♂♂ abundant; about thistle & bracken!

B. ^{*volatator*} ~~*terrestris*~~ 4♀♀ *Limona* *glandulata* ♂. *L. parallela* ♀.

22-1 July 1929. A pouring wet day with NE wind.

23-1 July 1929. A dull morning, but fine in afternoon & nearly sunny (with blue sky northwards!).

Sandhills N. of Puck's Bridge, N. of Arklow, WI.

Bombus terrestris a ♂ on Thyme. *B. lapidarius* ♂♂ & ♀♀.

B. lucorum ♂♂, ♀♀ & 1 fresh ♀ seen. *B. agrorum* ♀♀.

Pithecus ^{*barbutellus*} ~~*terrestris*~~ ♂.

Megachile maritima ♀♀. *Colletes picistylus* ♂♂ & ♀♀.

Andrena sericea ♀♀ (com). *A. coitana*, inland of road ♀♀ on thistle.

Sphex lateris ♀. *Pompilus plumbeus* ♂♂ & ♀♀.

Chrysobothris *maculata*

Vespa norvegica, *V. rufa*, *V. sylvestris*, *V. mellea* ♀♀ on thistle.

Limona parallela ♂.

24th July 1929. A warm day, with a good deal of sun in forenoon, but quite dull after 2 pm.

Deputy's Pass, WI. mostly on N. (left) side.

Aculeata mostly as before, but the following add. notes made.

Bombus muscorum seemed very fresh ♂♂. *B. lucorum* ♂♂.

Pithecus barbutellus ♂♂.

Andrena denticulata ♂ on Ragwort.

Trypoxylon clavicornis, very common at some two stumps in old "garden" & 1 ♀ taken on other (S.) side of Pass on oak. *Odynerus sinuatus* ♀.

Formica ruginosa 2♀♀ seen at stump in old garden.

Bethylid ♂, *Chalcidius* spp. & other Braconids taken on oak.

Limona ♀ on stump in "garden".

Limona

Tryphonid ♀ with long terebra in log in "garden".

Pimpla scutellator ♀. *Glypta nigricornis* ? ♂.

Glypta curvipes ♂. *G. flavolineata* ♂, *G. erosum* ♂.

Schizopyga atra ♂. *Schizoloma* ♀

Red brachypterous ♀ *Brachypterus* on oak.

57.

24. 7. 29 cont. Deputys Pass cont.

25th July 1929. A dull day with only some
 patches of sun in late afternoon.
 Drove to Ballinaclesh, thence by Moneymeen round
 S. slopes of Broughanmoira to Aghavanagh, W.
 & home via Coolballintaggart & Anphriem.
 1 pm till 2 pm. stopped at Muchlagh Bridge for
 lunch. Here collected some iks. (mostly on Spruce)
 & in rock garden of lodge where some saw
Bombus muscorum ♀, B. agrorum, B. hortorum &
B. lucorum mostly on purple Buddleia, & also
 took a Braconid & a couple of small iks.
Limnobia bellator, a small ♂. L. ... ♀

all labelled
 Muchlagh
 Owl Valley
 C. W. A. W. S.
 25.7.29.

25. 7. 29

4 till 5 p
 at bridge
 Lodge [
Verpa rufa
Crabro var
nomata ♂
Tenthredella
Pimpla ♂
Phytodietia
Plectrocypta

most other

(? other dead in tree!)
 4. 3077 & 599 of the apanteles (1 ♂ in 28th May, 2 ♂♂ on 4th June, 599
 These emerged as follows: — 1 ♂ on 28th May, 2 ♂♂ on 4th June, 599
 on 9th June 1930.

Meeting of the Waters, Co. WI, 13/10/1929 cont.

In turnip field at 3 I found a batch of cocoons of Apanteles like those of A. glomeratus on a turnip leaf. The following spring I hatched from these:-

1. 4 ♂♂ & 3 ♀♀ of a sp. of Pezomachus (both ^{new} virgatus!) the ♂♂ of which run to No. 195 in Schrad. (i.e. P. convenientis Först.)

These emerged as follows: 1 ♂ on each of 1st April, 12th, 13th & 18th; two females on 21st April 1930 & one ♀ on 22nd.

2. 3 ♂♂ & 4 ♀♀ of a sp. of Hemiteles.

These emerged as follows:- 1 ♂ on 1st & 1 ♂ on 14th April, the last ♂ on 5th May, 1 ♀ on 9th May & 1 ♀ on 12th May 1930. ^{each} 13th & 14th

3. 1 ♂ & 1 ♀ Braconid, both of which emerged on 3rd April 1930.

4. 3 ♂♂ & 5 ♀♀ of the Apanteles (? others dead in box!)

These emerged as follows:- 1 ♂ on 28th May, 2 ♂♂ on 4th June, 5 ♀♀ on 9th June 1930.

24. 7. 29 cont. Deputys Pass cont.

25th July 1929. A dull day with only some
 patches of sun in late afternoon.
 Drove to Ballinaclesh, thence by Moneymoen round
 S. slopes of Braghanna to Aghavanagh, W.
 & home via Coolballintaggart & Anphriem.
 1 pm till 2 pm. stopped at Muchlagh Bridge for
 lunch. Here collected some ichs. (mostly on Spruce)
 & in rock garden of lodge where some saw
Bombus muscorum ♀, *B. agrorum*, *B. hortorum* &
B. lucorum mostly on purple Buddleia, & also
 took a Braconid & a couple of small ichs.
Limnobia bellator, a small ♂. *L. ...* ♀

all labelled
 Muchlagh
 Owl Valley
 C. W. A. W. S.
 25.7.29.

25. 7. 29 cont.

4 till 5 p.m. Collected in old oak woods along OW River
 at bridge (? Ballyteeje Br.) a mile above Coolballintaggart
 Lodge [labelled "Owl Valley" !].

Virpa rufa seen

Crabro rarin & *C. chrysostomus* ♂♂.

Monacha thuripura ♂ seen in ferns.

Tenthredella linda ♂ & *T. monacha* ♀ seen.

Pimpla rufata? ♂.

Phytodietus ... 2 ♂♂ & 1 ♀ in oak.

Plectrocyptus leucopsis, ♀ on bracken near stumps.

most other species taken in or about oak.

Took ♂ *Stenopis*
IV. pascalis on thistle
 (*C. patens*)!

26th July 1929. A dull day, warm, with little or no wind.
Some sun in afternoon.

From Wexford, via Enniscorthy & home via
Blackwater & Conestown. Stopped for lunch at
Ferrycarraig, at Wexford, & for tea at ~~Black~~ Gap
(= Blackwater ^{Head} ~~Conestown~~). All Co. WX.

Field, south of road, 1/4 mile E. of Ferrycarraig, WX.

1 till 2 pm. Sheltered & warm but no sun.

Crabro & *varius* ~~in~~ ~~the~~ ~~field~~, a species of *Bethylid*,
some *Aphidii* & ichs. Mostly on ^{aria} ~~the~~ ~~thistles~~ or along
hedges. Saw tree of *Pyrus* ~~latifolia~~ in apparently
native scrub below field (W. end of).

~~Crabro~~ ~~varius~~ ~~in~~ ~~the~~ ~~field~~.

Pimpla examinatrix ♂. 1 ♀ near *archia*?

Glypta ceratita ♂ ~~in~~ ~~the~~ ~~field~~, one with almost black hind tibiae.

G. menanator ? ♂ & ♀.

~~Crabro~~ ~~varius~~ ~~in~~ ~~the~~ ~~field~~.

Scrambled Bridge, above Enniscorthy, WX.

Stopped to examine Phillips' colony of *Colletes*
^{montanus} ~~montanus~~ ^{✓ RCLP.} in peat, but saw only one, a ♀, on
Kentodan flower. See R.C.L.P.'s letter & notes dated 19.2.30.

26.7.29 cont.

Wexford, sandpit in field at N. end of wooden bridge.

Here Phillips has taken 2 ♀♀ *Andrena costalis*,
2 till 3 pm. Not a few new moments seen!

Bombus distinguendus ♂♂ quite common, on *Carduus*
arvensis in corner of field west bridge.

Also seen *B. lucorum* ♂♂ & ♀♀, *B. agrorum* ♀♀.

Colletes picistipes ♀ on *Kentodan*.

C. montanum ♀♀ ^{✓ RCLP.} on *C. arvensis*.

Andrena clivicola ♀ on *Kentodan*.

Halictus ruficornis ♂♂ abundant, 1 ♂ & ♀ seen.

H. lativentris seen ♀ on *Kentodan*.

H. alpestris & *calceatus* & *pygmaeus* ?? ♀♀ seen.

H. temulentus ♂ fresh.

H. nitidus ^{✓ RCLP.} 1 ♂ rather abnormal.

H. villosulus 2 ♂♂.

Sphex divinus ^{✓ RCLP.} small ♂. *S. divinus* small ♂. *S. divinus* small ♂. *S. divinus* small ♂. *S. divinus* small ♂.

Vespa vulgaris nest. *V. vulgaris* ♀♀ seen.

Pompilus gilvus ♂♂, ♀ seen.

Psithyrus exaltatus ♀ seen.

Crabro peltarius, seen ♀♀

Meloboris arvensis.

Pachymeniscus
xanthocarpus ♂ ant.
✓ RCLP.

26.7.29 cont. Wenford sand-pit cont.

Lissonota corabunda ♀ ?

26.7.29 cont.

Sand pit s: 1/4 mile behind (S. of) Blackwater Head, WX. 4 till 6 pm.

Bombus muscorum 1 ♀ seen & ?

Andrena ~~saundersella~~ ^{saundersella} ♀. A. coitana ♀♀.

A. pygmaea ♀, 2nd brood.

Halictus rubicundus ♂♂.

H. leucopus ♀.

Colletes picistigma ♂. C. ~~montana~~ ^{montana} ~~montana~~ ♂. ^{✓ R.C.P.}

Nomada sturipon ♀♀

Panurginus githus ♀.

Myrmica melanoccephala small ♂.

Crabro palmipes ♂.

27th July 1929. A dull day, warm in shelter, slight breeze. Very little out.

Rail drum, W. 200 yards of path S. of goods station & outside tunnel!

Bombus lapidarius ♀♀ common. B. lucorum & agrorum ♀♀ & ♂♂ & 1 ♀ of agrorum seen collecting pollen.

Pityopsis hutchinsoni & distinctus ♂♂.

Andrena coitana ♂♂ & ♀♀. A. denticulata ♂ & ♀♀ in report.

Halictus rubicundus ♂♂ & ♀♀. H. caelestis 1 ♂.

H. freygessneri 1 ♂. H. tumulorum 1 ♂. H. leucopus 1 ♀.

Nomada sturipon ♂♂ & ♀♀.

Panurginus nigerimus ♂.

Mullerius arvensis ♂♂.

Crabro ruginus 1 ♂.

Vespa rufa, vulgaris, & rubecula ♀♀.

Odynerus 3-faciatus ♂, very common, on Clitella

Tenthredella lineata ♂♂ & ♀♀. Athalia lineolata seen.

27.7.29 cont. Rathdrum cont.

Glypta ceratites ♂♂ & ♀. *G. varicornis* ♂, white legs.

G. mensurator ^{a small dark form} ♀. & *G.* ♂ like *ceratites*, but with broader head? sp.?

Leiomota variabilis ♀.

Tryphon elongator

28th July 1929. A deep depression & rain all day!
Drove to Arklow Rock in afternoon & visited
J.G.J. Palmer's station for *Asplenium lanceolatum*.

29th July 1929. NW wind, very strong, but much
hot sun during day.

Clara, bridge to sandflat, left bank of Aronmore, W.I.
as usual. 12 noon till 3 pm.

Salix rostellatus ¹⁰⁷ ~~111~~ The habitat for this species is
now much overgrown with seedling birch, gorse &
& no bare ground is visible. Hence the species is very
difficult to observe, but it is still there. A ♀ seen.

29.7.29 cont. - Clara

Odynerus bifasciatus ♂. *Crabro peltatus*, a fresh ♀. *Salix exaltatus* 107

Vespa norvegica & *myrmica* ♂♂ on Angelica!

No other aculeates of interest seen! *Hydrometopius confusus* ♀

Small black wasp with white legs,

taken on bracken on roadside N. of bridge.

Tenthredopsis ♀ taken by Hugh.

Abia " ♀ at sandflat, where *S. rostellatus* lives.

Allantia ^{pallipes} ~~intermedia~~ ♂

Phosphorus virescens ♀. *Glypta ceratites* ♂

Pimpla ruficornis 3 ♂♂, one with "black & white" legs, the other "red & white".

Leiomota bellator ♀ on Angelica. *L. cylindricornis* ♂. *L. luteicornis* ♀ {Roman No. 107.

Dyspota praecognata ♂♂ on Angelica (1st seen 1929!).

Antomachus alboguttatus, several seen, one ♂ taken by George in wood near sand-flat.

Phytodietus 3 ♂♂, 1 ♀

During latter half of July 1929 many ♀♀ & 1 ♂ of *Cratichneumon testaceus* ¹⁰⁷ emerged
from the cocoons of larvae taken on birch at Shankill, Co. DU. by
A.A. Lacey in the previous June!

Shankill 11-12-1929 taken on Angelica in Cornish field at sand flat!

29.7.29 cont. Afternoon 3 to 5 pm. Drove up to
Derryhann & thence on Military Road to Drumgoff
& home via Glennahur, Ul.

4 till 5 pm. More by military road, near Ballybruid, above
Drumgoff; took 3 icks amongst leather.

Road by old barracks at Drumgoff; took 2 icks.

Lissonota buccator Thunb. ♀, Roman No. 105.

30.7.29. A poor day, no sun & misty rain at
times: depression approaching.

31.7.29. Frost fell & barometer, gale from SW all day
but considerable sun between 10 & 1.30 pm. Showers.

Deputy's Pass, Ul 11-30 till 3.30 pm.

Aculeator as before & only additions are *Andrena*

Trypoxylon clericum not so common at stump in "garden"
but seen in new spot at lower end of Pass on right side near
fallen (living) oak now!

Stenopogon lineatus ♀

31.7.29 cont. Deputy's Pass cont.

Pimpla maculator ♂. ♂.

Physothrips rufipes ♂♂ & ♀. *Schizopyga atria* ♂

Pemania luctica 2 ♀♀ at fallen oak, right side of Pass.

Glypta uraticus ♂. *G. emersum* ♂♂ at fallen oak.

Lissonota

Aerocremus maculatus, very large ♂. *Helicopelma calceator* ♀.

1st August 1929. A wild day, with rising glass,
heavy storms & much sun between.

Drove to Glenacorney & stayed there till 3 pm but

no hymenoptera seen, except a few *Bombus lucorum*

& *B. jonellus*; then returned to Laragh, where in oak-

wood took a few icks. Some small icks & braconids taken

in motor on both journeys! These labelled In motor on
1.8.29.
C.W. A.W.S.

Pimpla maculator ♀

Microctonus sp.? ♀ taken in motor in Ardara on return from Laragh. Cf. *M. xanthocephalus* Hal. A.W.S.
but Roman (No. 87) says "*M. cf. testaceus* Guss. sec. Thoms. but propodeum without a
well defined area petiolari."

1.8.29. Laragh.

Lampronota

♂. *Pimpla flavicoxis* ♂.

2nd August 1929. A bright day with cold E. wind.
Sunny in morning & evening but almost dull
during middle of the day.

Kilgorman sandhills & WX. 11.30 till 4.30 pm.

1 = N. of lane, 2 = S. of lane.

B. lapidarius 1 ♂, many ♀♀ seen.

Bombus terrestris 1 fresh ♀ & several ♂♂ seen.

B. lucorum ♂♂, fresh ♀♀ & ♀'s. *B. jonellus* ♂♂.

B. hortorum 1 micro ♀ taken. *B. agrorum* ♂♂ & ♀♀.

B. muscorum ♂♂, very fresh. Mostly on rapeseed & at 1.

(*Halictus albipes* ♂♂. *H. freygessneri* 1 ♂. *H. (villanovi)* ♀ seen.)

Psithyrus distinctus many ♂♂ seen.

Vespa sylvestris ♂♂ & ♀♀.

Pompilus ^{pectinipes?} ~~pectinipes~~ ♂ on wild carrot at 2.

P. (pectinipes) ♀ seen at 1 (usual sandy bluff).

Salix exaltata ♂♂ & ♀♀ by river stream at 2.

Ceraphron maculatus seen.

Crabro vernalis seen.

Mellinus arvensis abundant at 2.

Aspilota tumida ♀ on rapeseed at 1, below bluff.

Tenthredo arcuata common.

Allantia cinerea ♂ at 1.

2.8.29 cont. Kilgorman cont.

Leucostoma parallelata ♂♂ & ♀♀ seen & taken at 1 & 2.

L. curatunda ♀ at 2.

[best taken {stream} at 2.]

Glypta bipunctata ♀ at 2.

G. flavolineata ♀ at 2.

Pimpla brevicornis ♂♂ at 2. *P. maculator* ♂ at 2.

P. debita? ♂ at 2.

Dacnusa at 1 on bent grass.

2.8.29 cont. A few ichs taken on Angelica by railway N. of Jorey.

3rd August 1929. A hot sticky day, with very strong SW wind, after a stormy & very wet night. Sun very hot when out, but only a little.

11-30 till 1 pm. Walked with Hugh to 2nd pt. N. of Kynoch's & collected a few icks. in "strawberry hollow" between 2nd & 1st points, on bracken or amongst same.

Ophion luteus.

Melanichneumon sanguinator ♀

Banchus moribundus.

4 till 6 pm. Walked with Hugh from Enniscilly to Mizen Head & back: by shore, but back through dunes. No sun.

Saw many *Colletes picistylus* near Mizen Head.

Saw also *Tachyphex pectinipes* & *Compilum plumbeum*.

Compilum approximatum ♀ on spurge on gravel flat S. of Mizen Head. Very good ground, covered with *Euphorbia paralias*, *Glauconia lutea* &c.

Tenthredinid ♀ on spurge also.

4th August 1929. After a wet night & morning, some sun in afternoon, but heavy showers. Cool, little wind (V).

12 noon drove to Coolballintaggart & stayed till 4 pm., W.I. Collected in cut-down oak-woods on left bank of O.W. valley

below bridge above Coolballintaggart. ^{all labelled}

O.W. Valley
C.W. AWS.
4.8.29

Strangalia v. fasciata. Several specimens (♂♂ & ♀♀) on Angelica.

in mossy spot on hillside. Very likely spot for *Cephalanthus ensipolis*!

Bombus lucorum, *B. agrorum*, & *B. muscorum* seen.

Crabro varius 2♀♀. *C. chrysostomus* ♀ on Angelica.

C. ruginus ♀♀ on Angelica.

Forsteria mystaceus ♀ on Angelica.

Glypta ♀. *Glypta crassicornis* ♀. *G. flavolineata* ♀?
Leiomota ^{bellator} 2♂♂ & ♀ at oak. *L. cylindricornis* ♀ at oak.

Pimpla instigator, v. *intermedia*, ♂ on oak.

Typhlocyba brachycanthus. *T. elongata*.

4.8.29. In evening took *gemma* on dunes at Kynoch's.

71)

5th August 1929 (Bank Holiday). A dull cold day, after a very bright morning, turning & rain on approach of a new depression in afternoon.

Drove to Scarawalsh Bridge (N. of Enniscorthy) & thence, via Milehouse, to Kiltrea Bridge (River Worin). There collected for an hour in quite good ground with some old oak stumps.

Afterwards drove through Cairn, along S. edge of remains of Killenbrann Forest - past Ballyhyland, N. to Woodbrook, Boladurragh, & Newton Barry; thence home via Carnes & Forey. Some quite promising ground seen along R. Worin about Woodbrook & from Blackin' Bridge to Doran's Cross Roads. At Kiltrea Bridge saw or collected.

Bombus lucorum, *hortorum* ♂♂, *agrorum*
Andrena witana ♀♀.

Vespa sylvestris ♂♂ & ? ♀♀.

Altalis lineolata & *Tenthredo areolata* & *Tenthredella lineata*.

Dryopteris praecipua. *Pimpla turionellae* ♂.

Lissonota bellator ♂. *L. variabilis* ♀, on wild carrot near Milehouse.

Glypta menziesii, small ♀. *G. ceratites* ♂.

72.

6th August 1929. A warm day, with some sun, but numerous thunderstorms.

Kilcarrig Bridge (R. Slaney) Co. CW. & the glen of the GLASHA or GLASHAVEIGH river which flows into Slaney from W. just below bridge. 12-30 till 5 pm. Fine from 1-30 till 4 pm.

Bombus lucorum ♂♂ & ♀♀. *B. hortorum* ♂♂

B. agrorum ♀♀. *B. muscorum* ♂♂ (2 or 3).

B. lapidarius ♀♀ numerous.

Psithyrus distinctus & *P. barbutellus*

Andrena marginata 4 ♂♂, 3 ♀♀ very fresh & almost black specimens. 1 ♂ on *Scabiosa succisa*, rest on *Carduus palustris*. *Scabiosa* not yet nearly out except for a few flowers.

A. witana ♀♀. *A. denticulata* ♀♀, one very worn & looked like *vitana*.

Halictus rubicundus ♂♂, *H. calceolus* ♂♂. *H. albipes* ♂♂ & ♀♀.

H. tumulorum fresh ♀ & ♂. *H. leucopus* fresh ♀ seen.

Nomada rufipes 2 fresh & large ♂♂.

Salix exaltata ♂♂, (small ? ♀ seen of the sp.)

Mellinus arvensis

Colletes rufus ? seen. *C. chrysostomus* ♂.

Myrmica schrecki ♀♀ on path W. from Slaney up glen. *Lasius phlogissus* ♂♂ in hundreds, ♀♀, but no ♀ seen!

6.8.29 cont. Kilcory Bridge, CW. cont.

Pachyprotasis rapae ♀

Allantia calcitrans ♂.

Schizotoma capitata ? ♀

Pimpla instigator v. *intermedia* ♂. *P. tarionellae* small ♀. *Polyphincta varipes* ♀

Glypta mensurator ♂ & 2 small ♀♀ (one with longer terebra than the other). *Pimpla* (?) *detrita* ♂

G. longicauda, fine ♀ & 2 ♂♂; *Limnobia bellator* ♂.

Glypta ♂.

7th August-1929. Brittas Bay, S. of Nijem Head, WI.

A dull day, after sunny morning, only 10 min. sun all day.

Pompilus rufipes small ♀. *P. plumbeus* ♂♂ & ♀♀.

Tachysphex pectinipes ♀ one seen.

Sphex laticornis, old ♂, with tattered wings.

Crabro vesmali seen.

Mellinus arvensis seen.

Colletes picistigma ♂ & ♀, large.

Limnobia parallela. ♂♂ & ♀♀ common. *L. errabunda* ♀, this sp. A. Roman No. 101. ²¹

Pimpla brevicornis ♀. *Cremastus geminus* ♀.

Red Admiral
seen 11.30
Pompilus seen
down to 10.0 only.

8th August 1929. A fine morning, but dull with
showers after 12-30 pm. With C.O.

Drove to Coolballinagart (Old River valley) WI
& collected in cut down oak wood (as before) for
one hour (11-30 till 12-30). Then drove to Agh-
-a-ranagh & over pass to Drumgoff & home via
Glenmalur. Left motor at summit of pass &
walked to Kelly's Lough, where I worked the
scarp S of lake & got *Hymenophyllum wilsoni*,
Hyopodium alpinum, *Vaccinium vitis-idaea*, *Salix*
hercynica, *Sax. stellaria*, many lichens & liverworts
for Miss Knecht & Miss Buchanan; Sub. C. Oldham
worked the lake & took *Pisidium litoreum*
near outlet & *P. concertanum* & *P. tillgystoyi* near
inlet (the former in peaty mud & latter only in reddish silt
brought down from gully) but not associated.

8.8.29 cont. Coolballintaggart, WI.

One ♂ *Strangalia* iv. *punctata* only seen on this day;

taken by C.O. on *Angelica* by road. *Crabro hyperborea* ♀
C. varius ♀.

No new aculeate seen on this occasion!

Small black sawfly taken on birch: — *Femura pumila* ♀ & R.C.P.
Ichs almost all on oak.

Glypta crassum ♀. *G. bicornis* var. *rostrata* 20 ♂♂. *G. flavolineata* ♂

G. ...

Camponota caligata 3 ♂♂.

Physothrips viridis ♀.

9.8.1929. Collected at ...

Salix ... *... punctiventris* Roman No. 108.

Meniscus impressus 248

9th August 1929. A fine warm day, but not much sun after 11 AM.

Drove to Killybegs Bridge, with C.O., & collected for 2 hours (1 till 3 pm.) then drove to Kilderrin. There discovered large sand pits on C.W. (right) bank of Slaney & collected from 3.30 till 5 pm., then home via Seaview Bridge & Ferns.

1 till 3 pm. Killybegs Bridge, C.W.

Andrena lasius fuliginosa ♂♂ still about stumps, but not coming into open & no ♀♀ seen. *Myrmica ruginodis* ♀♀ seen.

Two Red Admirals & 1 Speckled Wood at the foot of the "pub" at base of birch tree.

Andrena marginata ♂♂ & ♀♀ taken on *C. palustris* & on the first flowers of *Scabiosa succisa* that were out, one ♀ taken collecting pollen on Ragwort!

Odynerus (? *sinuatus*) seen on *Angelica*

Crabro podagrum at foot of birch tree (? at "pub").

Othorini no new aculeate seen on this occasion.

Nomada rufipes ♀ at Turners by path from bridge to Glasha Glen.

Allantia cinctus. *Ametastegia equiseti* ♂. & R.C.P.

9.8.29 cont. Kilearry Bridge cont.

Hemicoptilus ramiculatus? *Glypta longicauda* ♂? *G. minorator* ♂?
Lissonota bellator ♂. *L. femorata* ♀. *Glypta robusta* ♀. *Pteronotus*? ♀
P. d. ♂

3.30 till 5 pm. 9.8.29 cont. Kildavin Sand-pit, CN.

Bombus lucorum ♂♂ + ♀♀. *B. hortorum* ♂♂.

B. distinguendus 2 fine ♀♀ seen. *B. derhamellus* 2 ♂♂.

B. agrorum 2 ♀♀ + one specimen like an old worn ♀ seen.

B. agrorum mostly ♀♀, ? ♂♂. *B. muscorum* ♂♂.

B. lapidarius ♂♂ + ♀♀, some of latter very large.

[*B. terrestris* possibly there but not identified for certain.]

Andrena scitans on buttercups. *A. dentifrons* ♀ on Ragwort.

Haliictus rubicundus fresh ♀ seen. *H. albipes*, *calceatus*, *pygmaeus*

+ *H. tumulus* ♂♂ seen.

Sphacodon affinis ♂♂ + ♂ of larger species seen (? *divinus*).

all in *Scotia minor* or *Scotia nigra*!

Myrmica schencki ♀♀ in usual places. ♂♂ + ♀♀ (winged) seen
 = one place at mouth of nest on side of old pit.

Exetastes illuzor ♀, Roman No. 112, var. with black legs!

10th August 1929. A fine day, but not much sun!

11 AM till 1.30. Askeintony, S. of Arkelow Rock.

Hydrometopius hyalinatus ♀.

Haliictus villosulus ♂.

Sphacodon affinis ♂ + ♀ ✓ RCHP.

Salix exaltatus ♀.

Oedematopsis scabricola ♀.

Lissonota bellator, large ♀.

10th August 1929 cont. 2 pm till 5 pm. Very windy & dull.
 Kilmichael Point, W.X. to see Mathesia sinuata with C.O.
 Did not collect more than an odd one. if any.
^{exactly} Ochreus, legitimus in grass on rocks.

11th August 1929. A fine warm day, with considerable sun.

Clara, W.I. from birds to sand flat, as usual.

The only aculeate of interest seen or taken were: -

Vespa austriaca many ♂♂ flying round oak on sand-flat.

Salix notata ♀ taken at stump on roadside, N. of Clara bridge.

None seen at usual station on sand-flat.

Pemphredon lugubris ♂ in Osmunda glade at sand flat.

Crabro peltarum just fresh ♂♂ & ♀♀ at sand-flat.

Colletes succinata ^{C. varius ♀. C. palmipes, ♂.} very fresh, many ♂♂, a few ♀♀ on edge of sand-flat.

Sphexodes divinus ♂.

Pristiphora melanocarpa ♀.

Pteronidea melanaspis, var. maculiger Cam. ♀, ^{V.R.C.P.} on birch in Osmunda glade.

Ichneumon delicatorius ♂. Centistes, alboguttatus ♀. Amelyle, quadripunctatorius ♀ behind Osmunda glade.
 in oak wood: others seen!

11/8/29 cont. Clara cont.

Lissonota bellator ♂. Pimpla ♂ with yellow scutellum, like Pentagaster v. intermedia.

Glypta evanescens ♂ in Osmunda glade. Lissonota ♂. Pimpla rufata ♂

Pimpla ♂, with long narrow abdominal segments & large buccal triangle, very small, amongst bellows behind sand flat.

Polyphincta pallipes ♀.

12th August 1929. A fine day but only occasional sun.

Valley between L. Tag & L. Dan, W.I., 12 noon till 5 pm. with C.O.

Bombus lucorum, muscorum, hortorum & agrorum seen.

Andrena coitana 1 ♀.

Halictus albipennis ♂♂ & H. calceatus fresh ♀, seen

Vespa austriaca ♂♂ flying over bracken. V. vulgaris.

Crabro varius, 1 very small ♀. Mellicentia arvensis.

Also about 10 spp. of ichs. taken about middle morning: & the spider Lycosa picta (fide S.R.P.B.) taken in "strand" at L. Dan: 1st inland record for Ireland, I understand! Taken here also on 20.4.29.

12.8.1929 cont. L. Lane cont.

Pimpla rufata 4 ♂♂ (2 with yellow lines on thorax + 2 with humeral dots on ely.).
L. bellator ♂.

13

18th August 1929. A fine day after 2 bad ones, with considerable sun, but cold N.W. winds.

Provisional - deer park, 41 with Salix.

1 = cliffs on Maunlin side (then labelled "cliffs").

2 = floor of deer park

Bombus terrestris 2 ♂♂ on heather at 1. *B. lucorum* ♂♂ + ♀♀.

B. hortorum ♀♀ at 1 + 2. *B. jonellus* 1 ♀ at 1 + ? a ♂.

B. lapidarius ♀♀ + 1 fresh ♂ at 1. *B. agrorum* ♀♀ very rare

B. muscorum ♂♂ at 1.

Psithyrus distinctus + *basileuterus* ♂♂ + ♀♀. One ♂ had only 2 rings + 1 fresh ♀ of latter had no trace of any rings (it was seen in flowers of ragwort).

Colletes ruscicola 1 very large very fresh ♂ on ragwort at 2. at. bank of river by road, below saw mill

18/8/29 cont. Deer park cont.

Andrena fuscipes ♂♂ common, 3 or 4 very fresh ♀♀ at 1 + 1 ♂ at bank by stream near fall at 2.

Halictus rubicundus ♂♂ + fresh ♀♀, abundant.

H. calceatus ♂♂ abundant, 1 fresh ♀ seen at 2.

H. fuscicornis ♂♂ at 1 + fresh ♀ at 2 (also a few ♂♂)

H. tumulorum fresh ♂♂ + ♀ by river ^{below} bridge, near fall at 2.

H. leucopus several ♂♂ at 2.

Sphex ('affinis' ?? ♂ + ♀ seen at 1.). *S. (divinus) ?* 2 ♂♂ at 2.

Homada rufipes ♂♂ + ♀♀ at 1 + with *fuscipes* { river near fall at 2.

Mellicope arvensis abundant at 2, rare at 1.

Vespa only one specimen seen but 2 species

Salix exaltata ♀♀ at 2.

Athalia lineolata common at 1, a good number!

About a doz. of eggs taken at each place (1 + 2) + very many seen on elms in oak wood below cliffs

Pimpla thoracellae ♀ at 1. *Pimpla* small ♂, pale stigma, dark hind femora (? *benicornis* var.).
Lissonota bellator ♂ *Meniscus impressor* ♀.

21st August 1929. A dull day, with heavy rain at 5 pm.

Upper Liffey, WI. (above Athdown!)

Nothing taken but one ich. amongst heather at ca. 1250 ft. near top end of Coronation Plantation.

25th August 1929. A very fine day, with considerable sunny periods & cool N. breeze, but after a very wet week there was not much out.

11.30 - 1.30 pm. The Murrey, S. of Newcastle Station, WI.

Bombus muscorum, *agrorum*, *lucorum* & *lapidarius*.

Pompilus rufipes a fine ♀, dropping home large spider

(*Araneus cornutus* imm. ♀, ^{"almost certainly"} ♂) on beach margin just S. of Station.

P. plumbeus ♂♂ & *P. gibbus* ♀♀.

Ceryle maculata in wild carrot.

Tenthredo arcuata very abundant. } in wild carrot.

Chloroceryle inanis very abundant. }

Macronema marginata ? ♂ in marsh in Siem.

Lissonota venilis ♂. *L. parallela*, small ♂.

Glypta sp. 5000 like *longicauda*, but *caudata*.

25.8.29 cont. The Murrey cont.

Pimpla brevicornis ♀. *P. lucorum* ♀. *P. rufata* ♂. *Exochus guttatorius* 4 ♀♀.

Cryptid ♀, *Stilpnus imitator*. *Pompilus* at beach margin. *Pomp.* also *Pomp. gibbus* : has my head under II.

2.5 pm till 5.30 pm. Called at Killoughlin channel, WI to pick up Palmer, who had been collecting "Small Meadow Brown" there. He had also taken

Halictus rubicundus com ♀. *H. calceatus* very fresh ♀.

H. albipes ♂. (George took ^{very small} ♀ ♂ *H. villosulus*, ^{very small} ♂ ♂)

Andrena denticulata ♀.

G.

Very fresh ♀.

Then on to Bally Lusk channel, WI. *Stachys* in Siem.

Bombus terrestris fresh ♀ seen. *B. lucorum* com ♂♂.

B. hortorum ♀♀ & fresh ♀. *B. agrorum* ♀♀ very com & fresh ♂♂.

B. lapidarius ♀♀ & ♂♂.

Psithyrus distinctus ♂♂, *P. barbutellus* ♀, *P. campestris*.

♂♂ of both pale, dark & intermediate forms.

Andrena denticulata ♀♀.

Halictus rubicundus, *H. calceatus* ♂♂.

1st September 1929. A fine day after depression, but
my strong SW-W wind & very little out. Not much
sun till after 1 pm, then all sun.
Sandhills & coast at Portrane, Du. (With Palmer)

1 = sandhills 1/2 mile S. of angham.

2 = Coast outside angham & N. of Martello Tower.

Bombus lapidarius ♀♀ & ♂♂ frequent.

B. terrestris 1 ♂ (also 1 ♀ reported by Palmer.) at 2.

B. lucorum several ♀♀ only. *B. muscorum* 1 ♂ seen.

B. agrorum 2 ♀♀ seen only. *B. terrestris* ca. 6 ♂♂. ^{all faded} *B. terrestris* 1 ♂.

Psithyrus rufus 5 or 6 ♂♂ on Ragwort.

P. distinctus ♂♂, old & faded, frequent

All above at 1 (unless marked 2).

Haleitina rubicundus ♂♂ & ♀♀ at 2.

H. calceata ♂♂ at 2. *H. vitidivinus* ♂♂ & ♀♀ at 2.

H. meathamellus ♂♂ & ♀♀ at 2.

Mellinus arvensis a few ♀♀ at 1.

Pompilus fitchii ♀♀ at 1 & 2.

P. plumbeus ♂♂ & ♀♀ (some latter very small) at 1.

Tenthredo arenata & *laticornis* at 2, only 1 or 2.

Spilichneumon viciis ♂ at 2 (Palmer).

Ichneumon castaneiventris ♀ seen at 1.

Microstigma ♀ at 2 (Palmer).

1.9.29 cont. Portrane, Du. cont.

Theridion ♀ on carot-at 2.

Pimpla ♂. Most the others at 1, unless marked 2.

Leucosticta bellator ♀♀ on carot-at 2

L. commutata ♂ & ♀ at 2 (Palmer).

L. sulphurifera ♂ & ♀

Wheaton,
Grallon,
Horse hatching,
Sand hatching
all seen.

3rd Sept. 1929. A very hot day, ^(some sun) with thunder at 5 pm.

Upper Glenasmole (Slade Brook), Du. - as usual.

Bombus agrorum frequent. *B. lucorum* 1 or 2 ♂♂ seen.

Crabro ♀, no doubt *varius*, seen

Mellinus arvensis ♀♀ common

[*Haleitina pygmaea* ♂♂ & ♀♀. *H. calceata* ♂♂ seen at

Slade Brook taken on *Salix cinerea*. ^{(*P. ruficornis* 344 fide R.C.P. Em. on 4/5/30, 11/5/30 & July (3) 1930. Also *Tryphonid* found dead on 25.8.30. with very polished & tuberculate abdomen.)}

Pimpla burserianus 3 ♀♀ at Calluna flowers.

Glypta ♀ at Calluna. *Leucosticta commutata*, a small ♂.

Ichneumon cf. gradarius? 2 ♂♂.

8th September 1929. A terrifically hot day, no clouds & south breeze (W) at end of very hot fine week.

Glencree, WI, from Knockree to Copse Wood & back along path & river. Not much at except at one oak-tree on N. slope of Knockree ^{near} & at Copse Wood.

Bombus agrorum common, ♀♀ mostly, *B. lucorum* very ♂♂. *B. hortorum* 1 ♀ seen. Saw one *B. lucorum* come to river & apparently drink by alighting on stone in mid stream & crawling down to water's edge. In returning he fell on his back in water & nearly lost his life, but managed to get out & eventually flew away.

Vespa sp. seen.

Pompilus nigerimus 2 ♀♀ seen.

Crabro varius ♂♂(?) 2 ♀♀ taken (latter night to *palinifer*).

Mellinus arvensis ♀♀ (a few only) seen.

Colletes succinata ♀♀ abundant at searp by river below Copse wood where *And. minutula* ♀ taken.

Nomada rufipes ♀♀ seen & 1 taken, very common, also ? one ♂ *A. fuscipes* seen.

Halictus rubicundus ♂♂ & ♀♀. *H. calceatus* ♂♂ & ♀♀.

H. albipes ♂. *H. leucopus* ♂.

Sphex laticinctus 1 ♂. See his notes in dated letter, list 18.3.30! *S. ferrugineus* at same place as —

One has only two cubital cells impressing: the other is very large and is *S. ferrugineus* pale. *S. ferrugineus* pale. *S. ferrugineus* pale.

8.9.29 cont. Glencree cont.

No samplings seen!

Pimpla instigator very large ♀ seen on alder; also small ♀.

P. rufata 20 ♂♂ & ♀.

P. brevicornis ♀.

P. oculator ♂♂ & ♀ with red. abd.

P. elegans 1 ♂.

Polyphincta tuberosa 3 ♀♀.

Colpomeria quadriscripta ♀ ? there.

Henicospilus rufidulus ♀ amongst bracken in Copse Wood.

Proctarchus rufus ♀ at birch. *Ichneumon* or (*gradarius*?).

12th Sept. 1929. A dull windy forenoon & fine afternoon.

Went to Minsack, Co. Westmeath for murex.

Did not collect anything in too cold & windy till afternoon. Then saw some *Bombus lucorum* ♂♂ & *B. agrorum* ♀♀. Also saw ♂♂ & ♀ of *Psithyrus campestris*, some of the ♂♂ being dark & some pale. Caught one ♂ of each & the ♀ which was pale.

91

13th Sept. 1929. A very fine sunny day: no clouds.

Perissomastix demissa, 41. 3-30 till 5 pm.

Collected on right bank of river 1/4 mile below the deer park, chiefly on oaks on top of river scarp.

Bombus agrorum a few old failed ♀♀ seen.

Mellinus arvensis ♀♀ seen

Crabro cetratus 2 ♂♂ on oak: the first I have ever seen.

Acanthocryptus viridis ♂.

Pimpla turionellae 2 ♂♂. *P. maculator* ♀. *P. rufata* ♂.

P. elegans ♂ & ♀.

15th Sept. 1929. A fine day, but not much sun & very little out.

Glencree, 41. Copse wood & river banks from old road.

Bombus agrorum, *B. lucorum* ♂♂, *B. hortorum* 1 ♀

Prithyrus campestris ♂♂ of both forms.

Halictus fuscicornis 1 ♀. ~~*H. confusus*~~ *H. punctatissimus* ♂.

Mellinus arvensis

92

15.9.29 cont. Glencree cont.

Pimpla maculator ♀. *P. rufata* ♂. *P. oculator* ♀.

Schizothorax ♀

Camprophora falcator ♀ at oak.

Dyspota praenoxator ♂♂ seen.

27th Sept. 1929. A fine sunny afternoon.

Perissomastix demissa (just below road at deer park gate

& on right bank of river. 4 till 6 pm.

Emphytus serotinus 2 ♂♂ flying round big oak in field: other seen! ✓ RCLP.

Bombus agrorum, old failed ♀♀ still at regressed. 13.9.29

B. (? *lucorum*) seen on wing.

Vespa vulgaris ♀♀ numerous at oak trees &:

Crabro varius? 1 ♀ on oak.

Pimpla maculator ♀. *P. rufata* 3 ♂♂ & ♀, (one ♂ has black & white hind legs).

P. oculator ♂

All iks. taken on oak, high above river!

93.

29th Sept. 1929. A fine day after a wet night,
rather cool & not much hot sun owing to high haze.
Clara^{W1}, oaks on sand flat 1 mile below bridge, as usual.
Bombus agrorum ♀♀ & ♂♂ seen. *B. lucorum* ♀ seen.
Halictus rubicundus & *H. calceolus* 10 each seen on Scabiosa
Vespa vulgaris 10, ♀♀ (or ? ♂♂) seen. *Lissonota sulphuripes* ♂?
Pimpla rufa ♀ ^{with almost red hind tibiae.} *Schizopyga atria* 2 ^{♂♂} on oak at top of sand flat.
Mesochorus sp. ♂. R.S. by river.
Pezomachus ♀ swept in woods.

Larvae of 3 spp. of sawflies taken on *Salix cinerea* at
Garryduff from Road near Stump's Castle, W1.
Pteronidea ferruginea 40-50 em. 18.6.30 & onward. *Homocidus parvicornis* 100-150. ^{✓ P.C.P. in list dated 17.4.31.}
Mesoleius found dead in pot at end of season & probably parasitic on *P. ferruginea*.
^{but could have come from larvae of brownish sept. form. Pteronidea, H.D. reared in pot earlier in 1929.}

4th October 1929. A showery afternoon, after fine morning.
Porrusmont demesne, 3-30 till 5-30 pm. after heavy shower!
[*Lissonota cornuta* ♀ taken by George whilst grass in deer park].
Most other species taken in demesne not for above golden sets
but a few on right bank of river a mile below deer park!

94.

6th October 1929. A cold day, with NW gale & showers after
very deep depression. From Brunker to Porrusmont
deer park gate & walked up old road & spent day
in woods between Maulin & Tonduff, Co. WI. Saw
beech fern, *Hymenophyllum wilsonii*, *Cystopteris* sp.
& collected *Lissonota* for M.B. He intended looking
for *Lissonota alpinum* on Maulin but was driven
into cover by the gale.

9th October 1929. A fine day, cold, with NW wind, squally,
considerable sun in aft.

Porrusmont demesne, above middle lodge, W1. With E. 5th.
& Miss Scott, to see place where she believes she took
the ♂ *Metacoelus paradoxus* in Oct. 1929. A number of
ichneumon, *Brachymeria* etc. taken, mostly by Orchard
then sweeping:—

Bombus agrorum ♀♀ & *Vespa vulgaris* ♀♀ seen.

Halictus sp. ♂ on fallen oak, like black *H. calceolus*!

T.T.O.

95.

Pomacentrum demersum, 9.10.29 continued.

13th October 1929. A very mild day, with S.W. wind.
No real sun at M. Waters after our arrival till 2 pm.
then considerable sun till 3-30.

Valley of Avonmore above the Meeting of the Waters, Avon, W.I.
12-30 till 4 pm. Spent morning above Castle Howard
gate on left bank (just above my bridge) ⁽⁼¹⁾ There caught
black & ick. with white "stern" & Daisy took wingless
Proctotrupid in cage taken out of rucksack. After lunch
walked up right bank & took some small icks. (+ beewards)
by sweeping hazel bushes & track, also 1 ♀ (Tryphonid?)
with longish ovipositor. ⁽⁼²⁾ Afterwards crossed to left bank
by 2nd my. bridge & all other icks collected at foot of ⁽⁼³⁾
woods along turnip-field immediately NE of said bridge.
The only aculeates seen were one or two very common
Bombus agrorum & some Vespa (? vulgaris).

96.

13.10.29 cont. Meeting of the Waters cont.

Aerodactyla degener ♀. ? swept off hazel on right bank, by track, ^(at 2)
Pimpla impator ^{red hind} ♀ taken on thistle at 3

Lampronia marginator ♀ at 3.

Cratichneumon fabricator ? ♂ + ♀.

♀ at 3

Lissonota sulphurifera ♀ (?) } by railway bridge
Achnum ♂ } at 3 flying over grass.

Pristomerus vulnerator ♀ swept off hazel at 2.

15th Oct. 1929. Aft. A dull gloomy, very hot day.

Too dark to collect!

Devils' Glen, Co. WI. (With MB for himmants).

Took several small icks. but all escaped but
one

20th Oct. 1929. A fine sunny morning after wet & stormy night turning stormy & cold after lunch. A.S.U.

Walked from Eniskerry to middle lodge Powerscourt & thence up Glencree river to 2nd "post-stick" & home via Curlewstown to Eniskerry. Some very nice ground for ichs seen along river & some terraces that should yield trees.

25th Oct 1929. A fine afternoon.

Drove to Altidore, WI, with M.B., to get liverworts *Jubula hutchinsonia* & *...*, which were found in plenty about the falls by M.B. although not seen there for many years. Met new owner of Altidore (Mr. Flood). ~~None~~ No hymenoptera seen.

27th Oct. 1929. A glorious day, no wind, very hot sun after a heavy frost (on two successive nights!) & leaves all falling off trees.

Drove Miss Port along course of Liffey from Dublin to Poulaphuca, taking "PH" of water at 16 places. Saw some good hymenoptera ground about Glane, Straffan, above Killellen (sandy marsh) & below Ballymore Eustace (bee cliff). Took several small ichs N.E. of Straffan, Co. KD. There we had lunch.

30th Oct. 1929. A fine afternoon.

Drove over "Feather Bed" to Glenree, WI, where ascended Maulin - Tonduff corry with M.B. to get more of black lichen (*Rhacodium*) for Miss Knowlton. Took also *Ceanogonium* & *Leidea sanguinea*.

3rd Nov. 1929. A glorious day, all sunny, but with very cold strong W to NW wind. A.S.U. Train to Kildare, walked to the Red Hills, then north over Dunmurry Hill to Chair of Kildare, thence over Grange Hill & back to Kildare across edge of Curragh. Myxo. (*Trichia contorta* on felled tree at ^{Dunmurry Hill}).

6th Nov. 1929. A fine day, with cold N.W. wind. Drove Miss Knowlton & M.B. to Maulin corry for lichens. Walked over Maulin & explored upper parts of corry, where at 1700 ft took unripe myxo. on liverworts: subsequently proved to be *Lamproderma*.

10th Nov. ~~Was~~ A fine sunny day between two deep depressions; followed by severe gale. Explored upper part of Deerpark, Powerscourt, WI; especially side valley towards the Long Hill, where on SW side of same found hanging valley with rocky floor which looks good ground for samples. One hymenopteron brought home in moss from E. side of waterfall.

99.)

17th Nov. 1929. With ASU. Walked from Old Bawn up Glensmole by Cooring Brook, round Seecarn & back via Butter Mt. Dollymore in Hill & Shinnabawnoge. Deep ^{dry} snow above 1500 ft. Fine day.

24th Nov. 1929. From Art O'Meara's & L.O.M. to Athy, stopping to visit Dan Aillen & for lunch at Pot of Goldskull, where EOM took 1 small *Proctos* in tea cup; home via Maganay, Ballyplaw & Hollywood Glen. Fine day.

1st Dec. 1929. With ASU. Walked from Eniskerry to Powerscourt Fall up east side Valley to Galary, thence to N shoulder of The Dorn Hill & along E channels of Sugar Loaf to The Ruell & to Bray.

15th Dec.

19

100.

List of Ichneumonids & Braconids sent to
S. A. Roman in Nov. 1929 (ret. Jan. 1930!).

Serial numbers continued from vol. 2, p. 354!

No. 75. *Lissonota* ? n. sp. ♀. Liffey Head, 1700 ft. alt. Co. WI. 7.6.29.
= "*L. magdalenae* Funkh. 1921 (Syn. *L. vernalis* Roman 1924)." A.R.

No. 76. *Lissonota femorata* ♀. Powerscourt. Dph. Co. WI. 7.6.29.
8.8.1927. = "*L. biguttata* Hym. (Syn. *L. femorata* Hym. & probably *L. crassipes* Thun.)." A.R.

No. 77. *Lissonota carbonaria* ♀. At *Salix cinerea*, Beshmabreena
Co. Du. Miff. Scott. 8.5.28.
= *L. carbonaria* Hym. Carr has taken ^{a ♀} it at Lichfield. A.R.

No. 78. *Lissonota variabilis* ♀. Powerscourt, Co. WI.
10.9.1926. "Correct!" A.R.

No. 79. *Ephialtes tenuiventris* ♂. Clara, Co. WI. 19.5.1929.
"Correct!" A.R.

No. 80. *Ephialtes* (*tenuiventris* ?) ♀. Meeting of the Waters,
Arreea, Co. WI. 23.7.1927. = "Species unknown to me.
Possibly *musculus* (Krb.) Hal., but hind tibiae
differently coloured, stigma too." A.R.

No. 81. *Pimpla* (*bernuthi*?) ♂. Clare, C. W. 19.5.1929.
= "*Epiurus inquisitor* Scop. ♂." A.R.

No. 82. *Glypta* (? *nigricornis* var.) ♀. Portrane, Co. Du.
31.8.1928. "Probably correct." A.R.

No. 83. *Glypta* (? *pictipes*) ♀. Camphire, Co. WA.
14.8.1928. = "*G. pictipes varicornis* Thun." A.R.

No. 84. *Glypta* (? *trivittatus*) ♀. Upper Glenasmole,
Co. Du. 16.6.1929. = "Suits the short diagnosis
but has the clypeus with long pubescence!
Can't place it!" A.R.

No. 85. *Glypta* sp.? ♀. Glenageary, Co. W. 29.8.28.
"Same sp. as No. 84." A.R.

No. 86. *Ephialtes* sp.? ♀. Dartmoor, Devon.
R. B. L. Perkins. July 1929.
= "*E. mesocentrus* Gr., small specimen." A.R.

No. 87. *Microctonus xanthocephalus* Marshall? ♀
= "*M. cf. testaceus* Cress. sec. Thoms., but propodeum without
a well limited area petiolaris." A.R.

No. 88. *Chorebus lymphatus* Hal.? *vide* J. T. Lyle.
"Impossible to determine this carded specimen with
Thoms. I cannot even see if it is a *Chorebus*." A.R.

Notes on above by G. W. S.

No. 81. Is a large ♂ *P. inquisitor* undoubtedly! Agrees well
with a ♂ in Brauns coll. but larger. Verrellus is
intercepted just above the centre in ♂ (+ Brauns' ♂) & so
I ran it down as *P. bernuthi*!

No. 82. I have 3 ♀♀ of this form from Portrane. They
are smaller than Wicklow *G. nigricornis* & have much
longer terebra, otherwise similar.

No. 83. Will not agree with *varicornis* from Wicklow.

Nos. 84 & 85. I would be slow to agree that these
were the same species! Though both undoubtedly
have long pubescence on clypeus as Roman says.

A. W. S. 14.1.30

Another batch (*Lissonotids* & *Banchids*) sent to Dr. Roman
in Feb. 1930 & returned with postcard dated 3.3.1930.

No. 89 & 90. *Lissonota parallela* ♂ & ♀. Brittas Bay, W. 7.8.1929.
Apparently correct as Roman made no comment!

No. 91. *L. virgata* or *nitida*? ♀ Cahore, WX. 15.7.1929.

"To judge from the description both ought to be the same species, but I have nothing of this short-tailed species" A.R.

No. 92. *L. sp.*? ♀. might be a freak of *bellator* but unlike any other specimen I have seen.

"might be a var. of *carbonaria* Hgn., but I am not quite sure the abd. is normal." A.R.

Nos. 93 & 94. *L. dorsosa* ♀ & ♂. Deputy's Pass, WI. 19.7 & 24.7.1929.
"I think they are *L. palpalis* Thun., though never having seen the species before, I may be mistaken. *palpalis* ♂ is undescribed!" A.R. See further note at bottom of p. 106.

No. 95. *L. sp.*? ♀ (cf. *L. varicosa*). Clon, UX. 17.7.1928.

No. 96. *L. sp.*? ♀ (cf. *L. humerella*). Rathdrum, WI. 8.7.1926.
"95 & 96 are the same species, *L. buccator* Thunb. The 1st abd. seg. is somewhat different in both, but this is accidental, I have seen it before in *L. carbonaria* & *melania*, tho are also the same species." A.R.

No. 97. *L. sp.*? ♀. Upper Liffey, WI. 2.9.1927.

"*L. buccator* Thunb., too!" A.R.

No. 98. *L. sp.*? ♂. Glen of Linnah, WI. 31.7.1927.

"A melanistic ♂ of *L. errabunda* Hgn. (compared with types!" A.R.

No. 99 & 100. *L. errabunda* ♂ & ♀. Rathdrum, WI. 8.7.1921.

"99 is *L. errabunda* like 98. No. 100 may be *errabunda*, but if so it is very melanistic & smaller than the ♀ type." A.R.

No. 101. *L. errabunda* (?) ♀. Sand dunes, Brittas Bay, WI. 7.8.1929.

"Same as No. 100, but has yellow points on vertex, hind trochanters red!" A.R.

No. 102. *L. sp.*? ♀. (? *L. dubia*). Ballyhenry, WI. 29.8.1926.

"Not *dubia* tho has a terebra longer than the whole body (not rare on spruce here!). Very near a n. sp. I have from S. Sweden & from Germany, *Argyreethis*." A.R.

No. 103. *L. sp.*? ♀. (cf. *L. transsylvanica*). Lucan, DU. 5.8.1923.

"This ♀ has very strongly punctured abdomen (seg. 2 & 3!) = *L. buccator* Thunb. ♀." A.R.

No. 104. *L. sp.*? ♀. (cf. No. 103). Lucan, DU. 5.8.1923.

"Abdomen less strongly punctured! but with the same kind of sculpture!" A.R.
= "*L. buccator*, with rudimentary ventral dots." A.R.

No. 105. *L. sp.*? ♀. (cf. Nos. 103 & 104). Drumgoff, WI. 29.7.1929.

"Same as No. 104. It is remarkable that none of the present specimens have the two red facial stripes not rare in Sweden & used as a character for *varicosa* Thunb." A.R.

No. 106. *L. sp.*? ♀, with short terebra. ? bred from pine cones brought home from Poverscourt, WI. 21.8.1927.

"Is *L. caliciformis* Gr., dark var." A.R.

caliciformis

No. 107. *L. clypealis* ♀. Clara, WI. 29.7.1929.

"Correct." A. Rm.

No. 108. *L. sp.* ♀. Clonregal, CW. 9.8.1929.

"*L. ? punctiventris* Thm. Have no material for comparison at hand." A. Rm.

No. 109. *L. sp.* ? Very small ♀. Sand dunes, Portrane Du. 3.8.1928.

"Unknown to me. Antennae broken, due to the short need." A. Rm.

No. 110. *L. sp.* ♂. Taken with No. 109. Looks like a small

L. sp. *L. errabunda* ? "Sculpture of abdomen

much smoother than in *errabunda*. May belong to 109." A. Rm.

No. 111. *L. sp.* ♂, with elongate abd. segments.

Meeting of the water, WI. 23.7.1927.

"May be a small & dark *L. clypeator* Gr. (= *commutata* Hgn.).

No. 112. *Ectaster* sp. ? ♀. (? var. of *E. guttatorius* with black ventillum). Kildavin, CW. 9.8.1928.

"*E. illusor* Grav. ♀, var. *pedibus nigris*. Antennae thinner than in *adpressus* Thm." A. Rm.

No. 113. *E. fornicator* ♀. Mt. Butler, NT. 17.8.1927. P.A.P.

"Correct."

No. 114. *Banchus pictus* ♂. Meeting of the water, WI. 25.8.1928.

"Is *B. crepeldensis* Ulbr. ♂. The northernmost locality known. A. Seyrig has described the ♀." A. Rm.

See note at bottom of p. 106 (opposite) →

No. 115. *B. volutatorius* ♂. Cahore, WX. 21.7.1929.

"Correct." A. Rm.

No. 116. *B. moniliatus* ♀. Ballymole, SA. 21.7.1928.

"Is ♀ of *B. volutatorius* L." A. Rm.

No. 117. *B. sp.* ? (? *compressus*). Berrisford, WI. 19.6.1925.

"Is *B. femoralis* Thm. ♂." A. Rm.

D. Roman's postcard, dated 3.3.1930 reads as follows:—

"Two of your species outshine the others to my eye, viz. *Liss. palpator* Th. ♂ & ♀ & *Banchus crepeldensis* Ulbr, especially the *Banchus*.

It was described from the Lower Rhine valley (or), then I got a ♂ among Hungarian material from the Danube island Crepel; next Mr. Seyrig found ♂ & ♀ in Spain & now you send an Irish ♂.

It seems to be an exclusive spring species & belongs next to *B. moniliatus* Grav., though much richer coloured. *B. fenestrator* Thm. is known on the continent as a parasite of *Pandora griseoviridis*. *Lissota buccator* Thm. seems to be no rare species in Ireland.

I have always found it on tree trunks, principally *Salix fragilis* (cultivated). I scarcely think you have *L. dubia* Hgn., because in my experience it is invariably connected with spruce."

D. Roman p.c. dated 22/3/30 says that another pair of *Lissota* from Deputy, Pass, 19.7.29 & 4 ♀ from Clonregal, 9.8.29 are all *depressor* & the former not *palpator*. Cf. his note on Nos. 93 & 94, p. 103 ante.

He also says that max. palps of ♂ *Banchus crepeldensis* are like those of *B. moniliatus* & no other sp.

♂ 5th ant. ♂ 4th ant.

♂ 5th ant. ♂ 4th ant.

} species of his sketch! [cont. Vol. 4] p. 93.

1930.

26th Jan. 1930. A.S.U. A cold day with heavy mist in hills.

Bus to Blessington; walked to Talloght, via Slieve Donard & Marston.

9th Feb. 1930. A.S.U. A perfect day! Train to Newcastle; walked along coast & over Bray Head to Bray. Submerged peat exposed on beach at N. end of Newcastle Station. Studied section in channels at the beach.

23rd Feb. 1930. A perfect day! Spent day in upper deerpark at Powerscourt, as far as cliffs & reservoirs to old dog.

2nd March 1930. A fine day, with cold wind. Drove to Ballyhenry & Ballyhenry.

7th March 1930. Aft. Saw a few *Bombus* out in open above Mr. Doyle's at Bhernebrinna.

9th March 1930. Very wet, misty rain all day! A.S.U. Drove to Hollywood Glen: walked up Toor Channel, then saw ravens & west, south to head of Toor Brook & back over Church Mt.

16th March 1930. A fine sunny day. Walked to Templeogue & home.

17th March 1930. A. Farrington reported *Bombus* (? *lucorum*) at Maykenbeg, G.S.I.

18th - 19th March 1930. Heavy fall of snow in night: sunny next day.

22nd March 1930. A fine aft. turning cold & dull. Spent afternoon at Bhernebrinna. Saw nothing out in way of insects on willows! [Almond out in K. Square!]

23rd March 1930. Milder but wet in morning. Drove to The Sculp with Hugh in aft. Nothing seen.

Adonia

6th April 1930. The first fine day for a long time!

After frosty night a beautiful morning: cold N. wind later & clouds noon till 4 pm. especially between 2 & 4 when hardly any sun in Gold Mines Valley.

Ballyhenry quarry, U.I. 10-30 till 11.15 AM. HOT sun.

Bombus lucorum common } mostly at
B. terrestris 1 ♀ seen } willows.

Andrena clarkella ♂♂, very fresh, & ♀♀.

A. apicata ♂♂.

A. minutula & *pervulva* 1 ♂ on road.

Homada leucophthalma ♂♂.

No sign of *Bombus rufocinctus* which we had expected!

Railway opposite Deputy's Pass, U.I. 11.30 till noon.

Bombus lucorum several ♀♀

B. terrestris 1 ♀ seen.

Meeting of the water, U.I. 12.30 till 2 pm. Sunny & cloudy.

Andrena clarkella 1 ♀ at willow on ry. S. of

meeting. Nothing else seen. *Vicia* & *flor* (1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 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7th April 1930. Afternoon. A fine sunny day with cold wind (N.).

North side of Gargle Glen at upper end, C.W.

Bombus lucorum a few ♀♀ seen.

Vespa ♀ seen, looked like *rylandi* but?

I spent an hour in the oak-woods on the chance of getting *Cryptopimpla anomala* but not as yet seen; in fact the only hymenopteron seen was one ♀ (?)

Cynipid nest of *Vaccinium* & under oak.

N. of the oak wood I saw 1 ♂ *Andrena* at willow which looked small & grey like *G. praecox*, but?

10th April 1930. Afternoon. A fine day, with small clouds, much sun, but cold N. wind up valley.

Bohemia ⁽¹⁾ *green* & *Gleasonia*, E side along lower reservoir ⁽²⁾. C. & S.

Willow Warblers, Bluff Chaff, very abundant. Sand Martin by the Dodder above Old Barn.

Bombus lucorum, *B. terrestris*, & *B. jonellus* ♀♀ seen.

Andrena clarkella ♂ very fresh & ♀♀ at 2.

A. pygmaea ♂♂ & 1 fresh ♀ at 2.

Halictus pygmaeus 1 ♂ ^{observed specimen} on dandelion at 1. R.C.P.

Homada leucopthalma 2 large ♀♀, 1 small ♀ at banks at 2 with *A. clarkella*.

Amauronematus viduus ♂ at willow at 2. R.C.P.

Theridion 1 ♂, 3 ♀♀ at willow catkins at 2.

ARKLOW (EASTER) TRIP: 1930.

17th April 1930. From Arklow in afternoon.

A fine day with almost a gale from N. after very hard weather. Everything very backward.

Stopped at Ballyhenry quarry, W.I., but little seen & only 1 ♀ *Andrena clarkella* & 1 *Bombus lucorum* seen.

18th April 1930. A fine day with much sun in morning, but some cold strong N. wind.

Walked by road half way to Enniscorthy, W.I. & home by coast. Morning.

Bombus lucorum numerous ♀♀ at willows.

Pittacus *herbertus* 1 ♀ on dandelion along coast.

Apis mellifera nest in ash tree along road N. of Liffey River first seen ca. 1926 still in full swing & ♀♀ visiting willows & hard *Menispermis* along edge of marsh below road.

Andrena albicans 1 ♂ on willows by road.

A. nigrescens ♂♂ common & very fresh along coast.

Halictus rubicundus 1 ♀, *H. villorum* 1 ♀

H. (?) rubicundus ♀ on daisies & dandelions along coast.

18th April 1930, afternoon. By H. H. G. & M. H. G.

Drove past waterworks (Chickadee) & back
gate of Glenart-Castle, then southwards through
Johnstown across Wexford boundary to Glen
of the Glenties, where my good swampy
ground full of birch, willow & alder; also
oak woods. Saw here

Bombus terrestris 1 ♀. B. lucorum 9 ♀, many

In Glenside woods at back gate near Holly under
oak & very nice ground: saw Bombus jonellus
& B. lucorum here. No sign of it, although
some lost-run.

Stitchwort & Wood Sorrel will out at latter
 place.

19th April 1930. Much sun till 4 P.M., but
Northerly gale all day & very cold except
in shelter. Dull, with much rain, after
5 o'clock.

11-30 till 3:30. Woods & sand flat
below Clara Bridge, 451, as usual.

19.4.30. Clara: oak woods + sand flat, cont.
Bombus lucorum - 4 juv ♀♀, *B. pratorum* 1 ♀, seen.
Andrena *Papponia* ♂♂ abundant, several very
 fresh ♀♀, though *Vaccinia* - very little, hardly any.
 [No *Halicti* seen in sand flat!]
 4 ♂♂ of *Artemesia* + 1 ♂ *Camptoplegia* in woods, all
 from the *Vaccinia* - but not the *Halicti*.

Surf (Hae.) or in rock below - plat. = Lygonematus
~~Amphiteles~~ mollis ♂ V.R.C.P.
~~Stilidium~~ amatorius ♀ taken by track near
 upper end of sand plat.

Another 7'ick seen at - gone, but no more.

$H_2 = 10 = \text{mm.}$

for $\frac{1}{2}$ sec. several times by MSS + logs.

4 till 5 pm. Woods to - - Cant. Haven at
meeting of the Sat., Anna. W1.

Bombin Pucos 1 ♀ 2 cm.

Andrew Lippincott removed to N. Y.

No ink seen though lot run & melted.

20th April 1930 (Easter Sunday).

Fair from N. wind, after a very hot night with much snow: very cold: considerable sun in afternoon.

Gortin valley, S. of Coolgreany, Co. WX.

2.30-4.30 pm. Sheltered & plenty of sun, but willows only out here & there & nothing seen but a few Bombi.

Very good ground for insects: a few weeks later in year!

Bombus lucorum ♀♀. *B. agrorum* 1 ♀ very fast run on ♀ willow.

Cowdip out along roadside behind Glenartney, WI.

21st April 1930 (Easter Monday).

Storm gone at last! Much warmer, little or no wind: considerable sun after 2 pm.

Sandhills S. of Cahore Pt., Co. WX.

1.30-4-30 pm.

Bombus lucorum, *B. terrestris* (1), *B. jonellus* (2)

B. agrorum 1 ♀ at Gluckona, *B. hortorum* 1 ♀ at Primrose, others seen.

Andrena albicans ♂♂ at willow.

Apis mellifera ♀♀ at willow.

Small ♀ on sand in big hollow = *Empyrides pallipes*

✓ B.C.L.P.

22nd April 1930. A fine day, warm & with considerable sun, though clouds persistently hang over sun during midday.

Kilcarrig Bridge, Co. WD + Glen - the Glashneigh as before.

Megachile murina ♀♀ by the path as usual.

Bombus lucorum a few ♀♀ + 1 ♀ at willow.

B. hortorum ♀. *B. agrorum* ♀♀.

B. distinguendus 1 ♀ in sun, near willow.

Andrena rosae ♀♀ abundant, only 2 ♂♂ seen.

A. lucorum 1 ♂ + many ♀♀, latter very fresh.

A. ruficornis ♂♂ only. *A. ruficornis* ♂♂.

A. fucicola many ♀♀.

A. ruficornis ♂♂, 2 ♀♀, near willow, in sun.

Halictus confusus ♂, a small ♀ seen.

Halictus confusus ♂.

Salix fusca ♂, in ditch of road near.

Pimpla ♂♂, ♂♀, ♂♂.

sp.? ♂ in ditch, near willow, in sun.

Plenty of larvae & pupae in sun, in ditch.

Larvae of *Andrena* & *Halictus* in ditch.

Many larvae of *Andrena* in ditch.

Greenflies & ♂♂ in ditch, seen along

with from Glen, & from west of Kilcarrig.

115.
22/4/30 cont. Afternoon & 4 till 4.30 pm.

Sand pit near vicarage house, etc.:
Nothing seen in or on the sand pit, but
Bombus, probably all B. lucorum, also *Pyromela*
rebellis, *Leucis nigris* - 1. *Phryganea*. *Planorbis*
platyarthrus *hypomaculatus* is seen in the water.
Saw, but failed to catch, singles of *Phryganea* in
exactly where we were on 4.22.

23rd April 1930. Dull all day & misty rain from
11 AM onwards.

Walked over Arklow Head to Arkintony
& back across S. Strand. Saw one of *Prithyrus*
distinctus on head & 1 of *And. gurganensis* at
Arkintony.

24th April 1930. Bump, wet & foggy, but very
warm, all day.

In afternoon drove to meeting of the Waters,
& walked up right bank of river to 3rd
veg. bridge across same. Took one of *Conomatus*
in a tunnel house.

Very good ground for later in year! { Tried July 1930 but too
much overgrown after leaves
come on trees! A.V.S.

25th April 1930. Still damp & foggy, & drizzled
from 3 pm onwards.

From 6 o'clock, about noon, a sharp bit
rain came in. Warm & pleasant, but no sun.
Bombus lucorum & *terrestris* 7/7 at *Vaccinium*.
And. albicans not seen at all.
A. callianassa not in words, no of seen!
A. pratorum 1 fresh & taken in salt trough
road where *A. callianassa* nests.

Salix glauca, 1 seen at same place.
Ants: *Leucis flavus* & 1 *Leucis* very large at
same place. *Formica* up sand mounds.
The small one, *Formica* & *Leucis* both in words.
The small one of ~~*Formica*~~ taken on
Vaccinium behind 12 under glass: - (See R.C.L.P. in
alt. dated 17.4.3.)
= "*Contania collectanea* (or *Ameletus* sp. near *riduatus* *riduatus* var. sp.)

26th April 1930. A glorious day, with very hot
sun after a dull early morning. Drove home!
Devils Glen, WI. 12 noon till 3.30 pm. Very little
out at first, indeed things only just coming
out (? hatching out!) about 3 pm.

Bombus lucorum 7/7. *B. jonellus* 2/2 seen both on
Landelion glauca. *Prithyrus distinctus* 2/2.

26/4/30 cont. Devils' Glen, WI. cont.

Andrena albicans ♂♂ seen at willows below fall, etc.

A. grynana several ♀♀ seen.

A. subopaca, a perfectly fresh ♀

~~*A. maculata*~~ taken on flower of Wood Sorrel!!

Nomada fabriciana seen on dandelion.

Thrinax ♂ 1/2 mile above foot of glen, by road.

all-E. tridens fide R.C.L.P.

Eupria spp. ♂♂ & ♀♀ at various places between road & stream in glen: mostly on or about brambles.

Pimpla inquisitor ♂? 1/2 mile above foot of glen.

Goldilocks out all way up glen: also Bluebells.

[Garlic out at Newton mount Kennedy!]

Speckled Wood (1) taken by Hugh at foot of glen.

Holly Blue, abundant.

[Jack-by-the-hedge out at Eniskerry!]

END OF ARKLOW TRIP.

27/4/30. *Blennocampa subcana* ^{R.C.L.P.} taken at L. Dan, Co. WI.
by A.A. Linney (i.e. between L. Dan & L. Tay).

27th April 1930. A warm dull day till 3pm., then cold & foggy with E. wind.

Glencree river, just above where it enters Poynters, Co. WI. (left bank).

Bombus lucorum, *terrestris*, & *agrorum* ♀♀.

B. lapidarius 1 ♀. First seen 1930.

Andrena albicans ♂♂ abundant.

A. jacta ♂♂ flying over gorge. 1st 1930.

A. apicata 1 ♂ ♀, by side glen. *A. grynana* ♀♀

Nomada Fabriciana 1 ♀ on clay bank by side glen.

Salix fusca ♀.

Dolerus areolaris 1 ♂ swept in marshy meadow: 1st 1930.

Sagaritis in wood: the only ich. seen all day.

1st May 1930. The third perfect day in succession!

3-30 till 5pm. Marsh in floor of The Dingle, Co. DU.
with A.A. Linney.

Dolerus biogaster 2 ♀♀ on rushes just S. of wall across marsh, where AAL. took 1 ♀ on 21st April 1929. (AAL.)

D. migratorius 2 ♂♂. *D. areolaris* 2 ♀♀.

Also saw *Andrena albicans* ♂♂ & ♀♀, *A. jacta* ♂♂.

A. lapponica 1 fresh ♀ on *Vaccinium*. *Nomada ruficornis* ♂ & various *Bombi* in distance.

Cuckoo seen & heard! [Large White seen in Limerick Rd. DU.]

4th May 1930. A dull morning, turning fine, but 15 minutes after reaching Clara a jam formed & it rained hard, though the sky to east & also to west. Left Clara at 2 pm & made over Wicklow Gap, down Kings River Valley to Hollywood & Mergestown Glen, where there was considerable sun, but strong breeze.

12-0 to 12-30 noon. Marsh N.W. of Garrydaff Cross Roads, S. of Rathdrum, WI.

Dolerus nigratus ♂♂

Dolerus aeneus ♀.

D. madidus ♂ (E.O. Mahony!)

D. biogaster ♀ in rush patch close to road, N. of cross roads, S. of bridge!

12-45 till 2 pm. Clara, WI.

A few bees seen in wood before rain.

Pimpla calobata ♀ taken by Hugh on sand-flat under Scots Fir, on a piece of egg-shell!

4.5.30 cont.

Marsh at head of Mergestown Glen, near Hollywood, Co. WI.

Dolerus oblongus ♂?

D. madidus ♂ & also a ♀ seen in rushes.

Many Comenches heard!

5.5.30. Swifts seen in evening at Mayfield, Harold's Cross. Extraordinarily late in evening!

8th May 1930, late afternoon. Sunny & cold. Glen of the Dore, WI.

Sphex sp. ♀ & Nomada muscivora in old sand pit above Delany road. Arum in flower.

11th May 1930. A hopeless day with rain in afternoon in approach of depression. Ballymore Eustace, Co. KD.

Andrena sericea ♀, very fresh, on dandelion (Palmer), near sand-cliff by the liffey, where we arrived just as the rain commenced.

Common Bough in flower.

15th May 1930. Mostly dull & windy in aft.

The Dingle, Co. DU. for Dolerus biogaster but none seen.

D. aeneus ♀, the only one seen. German Shepherd out!

2 spp. ticks! -

18th May 1930. A stormy day, after a deep depression & severe gale & rain the previous day! Much sun!

10.30 - 11 AM. Marsh between roads at Enniskerry W.

Dolerus nigratus ♂

Empria sp. ♀ "probably *liturata*" file R.C.P., on Marsh Marigold.

11.30 - 12 noon. Ballyhenry quarry, Co. WI. Sunny.

Andrena praetia ♂♂.

Homada poderiana ♂ & ♀.

Some ich. & braconids.

12.30 till 4 pm. Clara, Co. WI. Sunny, very windy & several showers. Almost all taken in oak woods behind sand flat (1) & in Osmondia glade (2). A few species taken near Bridge & *Dolerus niger* ♂ taken above Bridge by M.D.S. (3).

No bees seen on sand-flat: too windy!

Homada vipula seen in woods.

Dolerus aeneus ♂ & ♀ in woods.

Portania leucopis ^{R.C.P.} ♀ on birch at 2 (antennae infrequently broken! AWS).

N.B. Some taken this day at Clara are *Empria* ♂ dated 25.5.30! AWS.

18.5.30 cont. Clara cont.

Pimpla tucionella ♂. *P. inquisitor* ♂♂ common amongst

Vaccinium & on young oaks just in leaf: for ♀ see below.

P. inquisitor small ♀: swept off *Vaccinium* not far below bridge

P. rufata (s.s.) ♂.

Phytodietus

21/5/30. *Empria longicornis* ♂ taken at Ennistymon, Co. CL. by P.A. Phillips ^{R.C.P.}

23rd May 1930, afternoon. A fine day, with hot sun & cool E. breeze at end of a fine week.

Glenasmole, Co. DU. East side of lower reservoir, under otherwise stated: almost all taken in first big coomb.

Bombus jonellus (1), *lucorum* & *agrorum* ♀♀ seen, no ♂♂.

Andrena subopaca ¹⁰⁷ ♂ on Bellis.

Vespa vulgaris & *rufa* ♀♀ seen.

Dolerus gemmeri ♂♂ abundant, a few ♀♀.

D. pinnulatus 1 ♂ in coomb; 1 ♀ in "dublin" marsh below dam, by road. T.T.O.

23.5.30. Glensmole cont.

Dolerus haematodes ♀. *D. nigripes* ♂

Loderus vestigiatus ♂♂ abundant; a few ♀♀.

Rhyogaster anapornae ♀ ^{✓ RCLP.} amongst nettles &c. below dam.

Empria sp.? ♂ ^{✓ R.C.L.P.} fide R.C.L.P.

Pimpla turionellae ♂

Sphesophya versipennis ♀ ~~XXXX~~

Chalcid sp.? ♂

13. Some of the specimens taken at Glensmole on 18th inst. labelled 23.5.30 by error! AWS.

25th May 1930. A glorious day, much sun & soft.

Upper Glensmole & Slade Brook Co. DU.

(by upper Glensmole moraine)

12 noon till 5 pm. With Palmer!

Bombus lucorum, *lucorum* (1), *distingendus* (1 Palmer),

agrorum, *muscorum* (rare), *derkhemellus* (common)

pinellus (1 on willow at 2). ♀♀ only

Prithyrus distinctus ♀♀

Andrena albicans ♂♂ & ♀♀, *A. clarkella* var. ♀♀ at 1.

A. praeox ♀♀ at 2. *A. lapponica* ♀ (Palmer) at 2.

A. fucata 1 ♂, 1 ♀ just out at 2. *A. cineraria* ♂♂ & a few ♀♀ just out at 1, ♂♂ below 2. *A. vilkella* ♂♂ at 1 & 2.

A. sandusella

A. subopaca

A. junci ♂♂ & ♀♀, Palmer found many ♀♀ at 2 going into one spot in bank.

25.5.30 cont. up. Glensmole & Slade Brook! 124.

Halictus calceatus ^{at 1 & 2} *albipes* 1 at 1, *freycassieri* 1 at 2,

H. leucopus 1 at 2

Nomada marshamella common. *N. ruficornis* 1 large fresh ♀ at 2 (Palmer).

Salix fusca large ♀ at 1 (Palmer).

Dolerus

D. nigripes

Allanthus cinctus ♂ at 1 (Palmer). *Empria immersa* ^{✓ RCLP.} ♂ at 2

Tenthredella atra ♀ at 1. *Strongylogaster lineatus* ♀♀ at 1.

Pontania sp.? ♂ ^{✓ RCLP.}

Ammonomatus fallax ♀ ^{✓ RCLP.} at willow at 2, rt. bank just

below "gorge"!

A. cameroni ♂ ^{✓ RCLP. Benson agrees! 1934. & again in March 1936!} at 2 with last.

Blennocampa tenuicornis ♀ (✓ RCLP) at same place.

Empria immersa ♂. *Empria* sp. ♂ "one of the dubious forms referable to *litorens* or some of the *undulata* group" R.C.L.P. ^{lit.} 17.4.31.

Ichneumon lueeni? ♀ at 1.

Cryptopimpla anomala? Two ♂♂ at 2 which seem identical with those from the Gold Mines Valley.

Pimpla detrita? ♂ at 2 (?). *P. instigator* ♂ at 1.

29th May 1930. A fine sunny afternoon after
a dull midday, cool E. breeze.
Kilmallin Glen, E. of Newtown Mt. Kennedy, Co. WI.
3.15 till 5 pm.

Bombus lucorum, *terrestris*, *agrorum* & *lapidarius* ♀♀
Andrena albicans ♀♀ gathering pollen on ♂ oak
catkins, also at Hawthorn, holly, &c.
A. pistis ♂♂ & ♀♀, *A. fucata* ♀, *A. sandracella* ♂♂ & ♀♀
common at pigwidgeon under bracken.

No *Halicti* seen!

Nomada marshmella common. *N. tipida* 1 ♀.

Eurytenes myrtaceus 1 ♂ on Hawthorn.

Pyrrhon spinosus ♂♂ common on one Hawthorn bush near
Athalia lineolata? ♀ only rarely seen

Pimpla *torquatus* 1 ♂ on Hawthorn

P. detrita 1 ♀, *P. similis* (?) 1 ♀ like last but with longer terebra!

Mesochorus *caesus*

Cataglyphis *serenus*

Common

1st June 1930. A dull day, cool in Dublin, very
hot in Barrow valley below Athy, very little
sun all day & never clear sun! Passed through
Leamy river between Kilmallin & the moat of
Ardschull, on way to Athy.

11.30 till 12.30. Old mud-pit by the Maganey road
1/2 mile S. of Athy, ~~W.D.~~ Co. KD. [S. Athy (D)]

Bombus agrorum ♀♀. No other sp. seen!

Andrena wilkella ♂♂ common. *A. albicans* ♀♀ on Hawthorn
A. fucata ♂♂ seen.

Halictus rubicundus common numbers on sward & in
flat grass in pit. *H. calceolus* ♀.

H. albipes, *villorum*, *nitidiusculus*, *tumidus* 1 ♀ each
No sp. of *Sphex* seen, though I have seen none

Halicti so abundant!

Crabro palmarum ♂♂ & one ♀ *Verpa* sp.? seen.

Tenthredopsis ♂♂ abundant!

Tenthredo arenaria ♂♂ & 1 ♀ seen. 1st 1930.

Tenthredella temula ♂ at Hawthorn.

Loderus vestigiatus 1 ♂

Loderus migrator ♂

Well butterfly seen.

1st June 1930. cont.

12-30 till 1-30. Marsh between road & canal
just S. of Ardrey hill & Ho. Very good pond
but not enough sun. ~~W. K. D.~~ Co. K.D. [S. Athy (2)]

Bee Hawk mott taken at flower of many antlers
M. aurinia flying over marsh.

Sedge Warbler heard for 1st time 1930.

Bombus muscorum ♀♀ frequent.

Selandria cerra ♂♂ & ♀♀

Tom. luteiventris ♀ seen.

Dolerus 1 seen amongst rocks.

Stellaria palustris
seen in
marsh drain
not in flower.

also *Selandria flavus* 1 ♂
✓ R.C.L.P.

1-30 - 2-30. Overgrown sand pit on east side of
road at same place, ~~W. K. D.~~ Co. K.D. [S. Athy (3)]

Prithium luteiventris ♀.
Bombus lapidarius ♀ reported by George. *B. hortorum*

B. myratorum a beautiful pair ♀ on red-clover.

Andrena wilkella ♂♂. *Monacha lachrymans* ♂

Halictus laticinctus ♂♂ common in red clover & *Veronica chamaedrys*
- ♂ in same place on 7.9.30! AWS.

& other spp. seen, probably *calceatus* & *tumulus*

Gorytes mystaceus 1 fresh ♀.

Tenthredo areolata. *Tenthredella tomalis* ♂♂ at Hawthorn

Tenthredopsis ♂♂ abundant.

1-5-30 cont.

sand-pit S. of Ardrey hill cont.
~~W. K. D.~~ *Tryphon* sp. ♂♂ & ♀♀ common amongst grass

Tankardston Bridge, R. Barrow, N. of Magsay
Co. ~~W. K. D.~~ Co. K.D. & river edge & plantation at N.E. corner
of same. [S. Athy (4)]

Pemphredon laticinctus ♂

Thalictrum flavum common.

Trisetia rhipipia ♂♂ & ♀♀

Empis ? sp. ♂♂. See R.C.L.P. note of 17.4.31.

Caliope celtica ✓ R.C.L.P.

all on leaves of
Viburnum opulus
filix frigida.

Brimstone Butterfly ♀ seen by Hugh & myself
E. of bridge.

Many spp. of *Halicti* resting at S.E. end of
bridge on roadside.

3-0 till 4-0 pm. Bank of Canal just N. of
Magsay, ~~W. K. D.~~ Co. K.D.

Dolerus palustris 1 ♂, 3 ♀♀

Andrena albicans & *jaesi* ♀♀ on Hawthorn.

2nd June 1930 (late evening of very hot day) cool breeze.
Upper part of Kelly's Glen, above Kilnashogue school,
Co. DU. 7 till 9 P.M.

Bombus lucorum & agrorum ♀♀ seen.

Dolerus senilis 1 ♂.

1 ich.

Salix pentandra just coming into flower & should
repay visiting!

3rd June 1930. A very hot day.

First Crabro varius seen in garden at Mayfield,
Harold's Cross for season 1930!

5th June 1930 see below!

6th June 1930. late afternoon, then dull & cool breeze.
Coast at Kilcoole station, Co. WI., with C. Oldham,
Father Kennedy & Peter Deane.
Practically nothing flying & only a couple of ichs.
taken.

Odynerus pictus ♀ seen at station.

5.6.30. Powerscourt, deer park Co. WI. 4 till 8 P.M. Fair day.
Sphex divinus ♀♀. Tenth. insulata ♂♂. Thrinax macula 2 ♀♀. Ichneumon maculatus ♂.
Selandria stramineipes ♀. Xylonomus pilicornis ♀. Ichneumon pilicornis ♀.
Pimpla examinator, small dark ♀; Tenthredopsis - red & black ♀.
Dolerus triaculatus & germanicus in usual. Ophion Sphaerophaga repens.

[5/6/30. Cladius difformis taken in garden at Harold's Cross, Dublin]
♀ & RCLP.

8th June 1930. A perfect day, all sunny, & just
interfere

Co. WI.

in marsh!

[no terrestris!]

Anthicus

♀♀ frequent.

♀♀ common,
[1 ♂ seen.]

two.

common.

as, one ♀
spiller. P.T.O.

frequent

♀ seen (AWS)

♀♀ & ♀ seen.

pleura yellow etc = luteus. (about halfway between
luteus & fuscipennis
on characters)

4, THURLESTONE ROAD,

NEWTON ABBOT,

DEVON.

17/4/31.

Amaur. viduatus ♂. Hal. fratellus ♀ ab. Blenn. subcana Poecilost. longicornis ♂. ✓

Rhag. aurifariae Poecil. ? m ♂. Lygaea mollis ♂. Blackish wings ^{very} fuscipennis ✓
but might not to have pale pleura!

Pt. ferrugineus ♂ Pt. ferrugineus ♂ Emphytus pallipes Try Pontania clectanea ✓
(Amaur. sp. near
viduatus or viduatus var. ✓

Poecil. tridens 4 ✓

Poecil tridens 4 ✓

Poecil. tridens 2 ♂. A. camerone ♀ darker? or vittatus? saw not visible. Pt. ribesii ✓

P. ribesii 2 ♀ saw should be examined. Pt. ferrugineus ♂, Blennocampa tenuicornis. ✓

Am. fallax A. camerone ♂ Poecil. immersa ♂ Mal. liturata ♀. ✓

Pont. leucopsis ♀ Emphytus cinctus ♀ Poecil. ♂ one of the ✓
~~Scaph.~~ dubius form referable
to either liturata or some
of the undulata group.

Pontania sp. ♂ ✓

Poecil. sp. antenna of
longicornis group, subtrifid saw:
cypius like liturata rather. ✓
Callosa aethiops. Selandria murio. Cladius difformis ♀

Priophorus padi ♀ bad. Selandria flavens. S. sericea, Thunus macula ♀ abnormal ✓
nerve

Sel. stramineipes. Dineura virens etc, Pt. myrothidis, Dineura testaceipes ✓

Pristiphora ruficornis Din. testaceipes var. Sph. hyalinatus large Sph. ferrug ♂. ✓
Emphytus pallipes

2 D. nitens ?? not metallic enough & reaction not typical. ✓

Am. Cameroni fid. RCP. 3 or 4 from Dartmoor.

1. ☐ A
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1930 samples: vide R.C.L.P.

Pontania leucopis ♀ On birch, Clara, WI. 18/5/30.

Empria longicornis ♂. Ennistymon, Co. CL. R.A. Phillip. 21/5/30.

Empria sp.? ♂. Glencasmole, DU. 23/5/30.

Pontania sp. ♂ Upper Glencasmole, DU. 25/5/30.

Empria immensa ♂. Slade Brook, Glencasmole, DU. 25.5.30.

Amanonematus fallax ♀. On salix, " " " " " "

A. cameroni ♂ " " " " " "

Blennocampa tenuicornis ♀ " " " " " "

Empria sp. ♂ "one of the dubious forms referable to liturata
or some of the undulata group." " " " " " "

Those listed below were named by R.C.L.P. when I stayed at
Newton Abbott in April 1931 & consequently there is no letter
relating to them from him.

[Pteronidea segmentaria, ♂. W. Galway, W.G. R.A. Phillip 1.9.29
previously named sp.? by R.C.L.P.]

Pristiphora pallidiventris Hack ♀. Ballyhenry, WI. 17.7.30.

Trichiocampus radiatus ♀ on Eucrymum, Deputy's Pass, WI. 15.7.30.

Pteronidea ferruginea ♂. Templemore, N.T. R.A.P. 2.7.30.

Selandria morio ♀. Rathdrum, WI. 26.7.30.

Fenusa dohrni ♀♀, on Alder, " " " "

" " ♀♀, " " , Enniscilly, WI. 27.7.30.

Ametastys equiseti ♂. Kileavy, CW. 16.8.30.

Pteronidea sp. (near n.sp. of Denis' group). ♂ Rathdrum^{WI}, 26.7.30.

" dispar ♂ Clara, WI. 11.8.30.

1930 samples cont.

(3)

Selandria morio ♀. Limerick, WI. 12-8-30.

Pristiphora pallidiventrin, orange form of ♀ (? n. sp. says R.C.O.)

Phoenix Park, DU. 19-8-30.

Ameuroneura ♂ & 2♀♀ of same series as that on p. 1.

Dr. Perkins said these were either vittatus, or cameroni var.

or another species near there! He also gave me 3 ♂♂
of genuine cameroni from material bred by him from larvae
taken on Gartmoor.

List of Syrphids revised by R. C. L. Perkins
see list dated 17/4/31.

Bred from 1929 larvae.

Athdown, WI. 7.7.29. Amauronematus cameroni ^{dark var.} or vittatus ♀
or n. sp. near there. Em. 6.5.30

Slade Brook, Glensmole } Pteronidea riberii 3♀♀ bred from larvae
Co. DU. 3.9.29 } on Salix!! Em. 4 & 11/5/30 & "July(?)'30.
I think these must have come from larvae or pupae which did not emerge in 1929.

Garryduff, Co. WI. } Pteronidea ferruginea 4♂♂, em. 18.6.30 & mounts.
29.9.29. } Nematus fusipes var. between this & luteus.
Em. 19.5.30.

1930 catch.

Amauronematus viduatus ♂. E. side lower reservoir, Glensmole, DU. 10/4/30.

Lygaeonematus mollis ♂. Oak rood, Clara, WI. 19/4/30.

Emphytus pallipes On sand, Calore, WX. 21/4/30.

Pontania collectanea (or Amauronematus sp. near viduatus or viduatus
var.) ♀. On Vaccinium behind Osmondia gladi, Clara, WI. 25/4/30.

Thrinax mixta ^{not seen 1929} } Devil's Glen, WI.

Empria trident ♂♂ & ♀♀ } 26/4/30.

Blencroampa subana L. Don, WI - A.A. Linney. 27/4/30.

Dolerus ligaster 2♀♀. The Dingle, DU. A.A.L. & A.W.S. 1.5.30.

Dolerus ligaster 1♀. } Garryduff, WI.

D. madidus 1♂ } E.O.M. & A.W.S. 4/5/30.

D. oblongus ? ♂. } Marginstown Glen, WI.

D. madidus ♂ (green) } A.W.S. 4/5/30.

Empria sp. ♀. "probably liturata" on Marsh Marigold in
Enniskerry marsh, WI. 18/5/30.

2nd June 1930 (late evening of very hot day) cool breeze.
Upper part of Kelly's Glen, above Kilmashogue school,
Co. DU. 7 till 9 P.M.

Bombus lucorum & *agrorum* ♀♀ seen.

Dolerus aeneus 1 ♂.

1 ich.

Salix pentandra just coming into flower & should
 repay visiting!

3rd June 1930. A very hot day.

First *Crabro varius* seen in garden at Mayfield.

Harold's Cross for season 1930!

5th June 1930 see below!

6th June 1930. Late afternoon, then dull & cool breeze.

Coast at Kilcoole station, Co. WI., with C. Oldham,

Father Kennedy & Peter Deane.

Practically nothing flying & only a couple of ichs.
 taken.

Odynerus pictus ♀ seen at station.

5.6.30. Powerscourt, deep park, Co. WI. 4 till 8 P.M. Fair day.
Sphex obscurus ♀♀. *Tenth. laticincta* ♂♂. *Thrinax macula* 2 ♀♀. *Ichneumon* *maculatus* ♂♂.
Selandria stramineipes ♀. *Xylonomus pilicornis* ♀. *Ichneumon pilicornis* ♀.
Pimpla eximinator, small dark ♀. *Tenthredopsis* - red & black ♀.
Dolerus bimaculatus & *germanicus* in usual. *Ophion* *Spherotheca ruficornis*

[5/6/30. *Cladius difformis* taken in garden at Harold's Cross, Dublin]
♀ & RCLP.

8th June 1930. A perfect day, all sunny, & just
 a gentle sea breeze which did not interfere
 with collecting. With Palmer.

The Tawern, S. of Newcastle station, Co. WI.

Or coast unless otherwise stated. 2 = in marsh!

Bombus lucorum ^{very} 4 ♀♀, mostly in marsh. [no *terrestris*!]

B. hortorum ♀♀ frequent, 1 ♀ seen, mostly at *Anthyllus*.

B. lapidarius ♀♀ common. *B. agrorum* ♀♀ frequent.

B. derhamellus several ♀♀. *B. muscorum* ♀♀ common, [1 ♀ seen.]

B. jonellus one ♀ seen (AWS).

Psithyrus rupestris at least 3 ♀♀ seen.

B. barbutellus several ♀♀ seen.

B. sp. 2 ♀♀ seen, probably some *distinctus*.

Andrena albicans 1 very worn ♀.

[No *Halicti* seen]

Osmia aurulenta ♂♂ & ♀♀ mostly worn, common.

Sphex laticinctus about a dozen seen, both sexes, one ♀
 watched burying large green noctuid caterpillar. P.T.O.

Tachysphex pectinifer ♂♂ & ♀♀ very small, frequent

Pompilus gibbus ♂♂ & ♀♀ abundant

P. rufipes, ♂ (Palmer) swept along railway, ♀ seen (AWS).

Ceraphus maculatus frequent. [Comp. *plumbeus* ♂♂ & ♀ seen.]

12.6.30 cont. Sunning at Kippure Lodge, WI.
5 till 6 pm. Very hot sun at times.
A few iks taken at brick trees.

15th June 1930. A fine morning but turning
dull with rain at 1 pm.
Drove via Lough to Glenmacross & home via
Sally Gap & Father Bed, Co. WI.
Collected a few spp. in Glenmacross, below fall.

[15/6/30. *Dineura testaceipes* ^{2♀ - one a m.} (V.R.C.L.P.) taken by R.A. Phillips at Kippure
also *Tristiphora ruficornis* C. Blair

17th June 1930. Saw a very fresh ♂ *Megachile centuncularis*
sunning itself on wall in garden at Mayfield,
Harold's Cross, DU.

20th June 1930. Took a fresh ♂ *Megachile villosa*
in same place in garden, DU. Also a couple of
iks.

22nd June 1930. A blustering day, with heavy shower &
S.W. wind after 1 pm. Much sun in morning &
between showers.

Athdown, Co. WI. Both banks of R. Liffey by the
footbridge, as in 1929!

Bombus lucorum ♀♀ & a few more ♀♀. *B. agrorum* ♀♀.

B. muscorum ♀♀. *B. jonellus* ♀♀ abundant in raspberry.

Andrena jactata 1 ♀ seen. *A. cineraria* ♀♀ frequent.

A. fucata ♀♀ common, ♂♂ more. *A. villosa* ♂♂ abundant

A. angustior 1 ♀ by path down field, (? had been on *Crepis*?)

Halictus calceolus, *nitidusculus*, *leucopus*, &c. ♀♀.

Nomada ruficornis 1 ♀, *N. flavipunctata* 1 ♀, both by path down

Crabro palmipes ♂, many seen but ? all this sp.

Pompilus gibbus 1 small ♀, *P. ruficornis* 1 ♂.

Pamphilus rufus ♀ on birch, top of left bank, as type.

Tenthredopsis 1 ♀, several ♂♂.

Tenthredo armata only a few seen.

Tenthredella juncipennis 1 black ♀. *T. palliata* common.

T. atra, *T. livida* & *T. mesomela* common.

Dineura virididorsata ♀, V.R.C.L.P. on birch, top of left bank.

Atthya trilineata in oak wood.

P. T. O.

22/6/30 cont. Athdown cont.

Trichosoma lucorum 1 ♀ on birch, at top of left bank.

Dolerus niger. ♀♀ common on oaks on rt. bank. D. aeneus. 1 ♀ at 2.

Pimpla rufipes ♂. P. ruculatus ♂.

P. oculatoris typical ♀ + ?? another ♀ like a melanine form of same, with just trace of yellow at top of inner orbit. Both taken on Rowan tree at top of left bank above bridge.

Meadow Brown just out!

26/6/30 cont Knockmaroon cont.

Pemphredon ^{leptipus ♀ AWS. 3/11/30.} ~~leptipus~~

Bethylus (? pusionis) seen, but lost in grass.

Chrysis ignita v. common on "cliff"

Glypta bicornis v. rostrata

Ringlet butterflies out!

26th June 1930. a/c. Knockmaroon, Co. Du.

Mostly dull & windy, but one half hour sun about 2.30. Worked old gravel pits joining the river & road near N. end of Guinness' bridge.

In small pit nearer Dublin I took.

Andrena nigroaenea 1 very young ♀.

Solenura varicornis ♂.

Glypta bicornis v. rostrata ♂

In larger pit further on:—

Bombus lucorum a few ♀♀ only.

B. muscorum 1 or 2 ♀. [B. lapidarius or B. rufus?

B. agrorum ♀♀ + ♂♂. 1 ♀ seen in distance!]

B. hortorum several small ♀♀ on Anthyllus flowers.

Andrena junci 1 young ♀ seen.

Halictus rubicundus only 1 ♀ seen.

Hylaeus communis ♂♂ + ♀♀ common on Blackberry flowers.

Except for one ♀ taken on 16/6/29 in garden this is really first definite Irish record. 1st has yellow on wings.

H. minutus 1 ♀.

Cerbro varius ♂ + ♀. C. leucostomus ♀. C. dimidiatus ♂♂ + ♀.

C. capitatus 1 ♂, I think, taken on Lychnis leaf.

← ← ← cont.

28th June 1930. Left Dublin at 1.40 & drove to Wexford, with J. H. Palmer, for week-end.

3.40 - 4 pm. Scarawalsh Bridge, Co. WX.

Colletes montanum colony in parapets of the old bridge in full swing, but ^{♂♂ already worked and ♀♀} ~~not~~ ^{very} fresh. Hundreds & hundreds seen flying in the sun.

5.0 - 6.30 pm. Sand pit in field at S. end of the wooden bridge, Wexford. Very little sun after our arrival & very windy.

Bombus muscorum 1 ♀. *B. lucorum* 1 ♀.

Andrena wilkella 2 worn ♀♀.

Halictus rubicundus, *H. albipes*, *H. villosulus* (1), *H. reticulatus* ♀♀.

Sphex divinator ♀♀. *S. affinis* ♀.

Colletes montanum? burrows on ^{stone} parapet of road to bridge.

Crabro peltaria ♂♂, rare, ♀♀ common, many carrying flies.

♀♀ varied much in size, but all noted gripped fly under hind left tibia.

Aspactes turidus 1 very fresh ♀ sitting on face of "cliff".

Myrmica melanoccephala 2 ♂♂, 1 ♀ with reddish head.

Pteronidea myrtilidis ♀, taken by Palmer.

28.6.30 cont

Late in the evening took a ♀ sampling, *Empidus* ¹⁴ ~~partially~~ sitting on bare sand in dune S.E. of Curracloe House, WX (9 pm.!!), where we had dinner on & pitched camp.

29th June 1930. A dull morning, with a few bursts of sun between 9 & 10 AM, but wind SE & strong, barometer falling & rain squalls from 11 AM till 9 pm. No sun after 10 AM. Began work at 8 AM. & took 1 ♀ *Gonatopus*

about 8.40 AM in sand hollow where also *Larix niger*. First sun at 9 AM. Saw many *Colletes montanum* appeared. After 10 AM. the only things taken or seen were along marsh on *Heracleum* &:

Colletes montanum ♂♂ & ♀♀ abundant on *Euphorbia*, *Leontodon*, *Rubus*, *Heracleum*, *Geranium* &:

Bombus agrorum ♀♀ seen on *Scrophularia nodosa* by Palmer.

B. muscorum ♀ seen & also a ♀ which was distinguished?.

Compilus plumbeus ♂♂ & ♀♀. *P. rufipes* 1 ♂, 1 ♀ (Palmer).

Hedychridium ardens 1 on *Leontodon* flower. ^{*Athalia lineolata* ♂♂ & ♀♀ on *Heracleum*.}

Proctosneumon fuscipennis ♂♂ abundant on *Heracleum*. ^{*Tithys erecta*.}

Pimpla instigator 1 large ♀ on *Heracleum* (Palmer).

29/6/30 cont. After rain, 9 till 10 pm.

Lane. W. of Curracloe & between that & main road to Blackwater. Several small sand pits. Halictus villosulus 3 ♀♀ dug out of a great colony of fresh burrows in one sand pit - on floor of pit! Crabro peltarius also dug out of burrows.

Bombus distinguendus ♀ near Curracloe House at 10 pm. (Palmer).

30th June 1930. A warm misty morning with S-SE wind: some L.A. sun between 9 & 10 AM. After that dull & from 12 noon rain or mist till we got in sight of Dublin, where it had been very L.A. & fine all day but raining in the hills.

9-30 till 11.30 AM. Sandpit at Wexford, as before. Considerable L.A. sun bursts. Very warm!

Bombus lucorum 1 ♀ seen on white clover.

Andrena carbonaria several ♀♀ seen at one of the smaller banks in bottom of pit: all very young & wild.

One, rather worn, taken by Palmer. No sign of ♂♂.

[Should be looked for evidently in 1st or 2nd week of June!]

30.6.30 cont. Sandpit at Wexford cont.

Andrena villosella several ♂♂ & ♀♀ seen.

A. gurgenea 2 ♂♂ brood 1 fresh ♂ taken.

A. 1 ♂♂ seen & taken on bracken in small isolated pit in middle of field.

Halictus rubicundus 1 fresh ♂ on this very early date!

♀♀ common & some looked very fresh!

H. albipes, H. tumulorum & H. nitidiusculus ♀♀ seen.

Colletes (montanum?) ♂♂ seen in thistles, ♂♂ & ♀♀ at bridge.

Crabro peltarius abundant, mostly ♀♀.

Salix exaltatus 1 ♀ dug out of burrow by Palmer.

Myrmica melanoccephala ♂♂ common.

30.6.30 cont. 12 noon till 2 pm.

Banks of R. Bann^① & sandpit at Clone^②, Co. UX.

Colletes montanum ♂♂ & ♀♀. C. darwini 1 ♂ at 2.

Hyssopus hyssaginus ♀♀ on Jasione & Leon todon at 2.

Myrmica melanoccephala ♂♂ at 2.

Crabro podagricus ♂♂ at 1 on Oenanthe.

C. dybowskii ♂♂ at 1. C. peltarius at 2.

Myrmica sp. ♀ on Oenanthe at 1.

Halictus sp. seen at 2.

Tenthredella atra ♀ seen at 1. Tenthredo areolata.

30.6.30 cont. Kildavin sandpit, Co. CW.
in heavy rain 2.30 pm.
Absolutely nothing seen!

30.6.30 cont 3 till 4 pm. Heavy rain.
Glen at Kilmory Bridge, Co. CW.
Odynerus rimator } taken on *Oenothera*.
Crabro }
Bombus hortorum ♀ seen at Foxlows.
Lasius fuliginosus as busy as ever!

Afterwards left Kilmory & drove home
via Tallon district & Ballynalan, arriving
Dublin at 6.30. Much more rain ground W.
of Tallon!

Sat: 5th July 1930. A very hot soft day; all sunny
till aft. but dull & very hot after 5 pm.
Garden, at Mayfield, Harold's Cross Dublin. 5.30 till
Megachile villughbiella 2 ♂♂ & 2 ♀♀ on *Campanula*. 9 pm.
Crabro varius common till 8 pm.
Cuscuta blurring moth, 1 flying 5.30 pm. 1 on leaf 9 pm.
Several ichs. & 1 red *Brachid*:—

4th July 1930, late evening, 6.50-7.30 pm.
Old quarries at Sandycroft, Co. DU.
To look for *Colletes*, but none seen.
Several spp. of ichs. taken on *Geranium*!—
Alomyia debellator, black ♂, 1 red ♀.
Pimpla robusta ♀. *Mesoleius*, ♀.

6th July 1930 A beautiful day after a dull morning & misty
rain till 11 AM.

11.30 till 2 pm. Old sand pit facing river at
Killeshin, Co. DU. as before.

Bombus muscorum ♀♀. *B. agrorum* ♀♀. *B. lucorum* ♀♀.
B. hortorum 1 ♀ seen, many ♀♀, 1 fresh ♂ on *Hypericum*.
Psithyrus sp.? a fresh ♂ seen, possibly *P. barbutellus*.
Andrena f. aenea, very common ♀.

Halictus several ♀♀ seen, probably common spp.
Hy. leucogaster ♂♂ & ♀♀ abundant, very visible in sight.
Crabro dimidiatus ♂♂ & ♀♀, latter carrying flies under left
hind venter like *puttani* did at Wexford.

C. niger ♂♂ & ♀♀. *C. capitatus* ♂♂ & ♀♀.
C. tibialis 4 ♀♀, new to Dublin. *C. quadrimaculatus* ♂.
Panurginus morio 1 very small ♀.

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6.7.30 cont. Knocknaron, cont.

Chrysis ignita.

Stenopos auratus ⁵ ex. on small yew tree bush.

Pemphredon laticornis 1 ♀.

Pompilus pilosus 1 worn ♀.

Elypta ceratita ♂. *G. lucorum* v. *rostrata* 2 ♂♂.

Leucostictus [?] *tollator* 1 fresh ♀.

Pimpla maculator ♂. *Leucostictus* ♂.

2 ♂♂ of *Sphegodes* ♂♂ & *Leucostictus* ♂♂ out!

6.7.30 cont. 2.30 - 5 pm. Lucan demesne, Co. Du.

Almost all taken in old sandpit!

Bombus lucorum, *agrorum* ♀♀. *B. hortorum* 1 ♂ on *Rubus*.

Vespa ♀♀ seen.

Andrena grisea & *villosa* old worn ♀♀ seen.

C. maculata ♂♂ & ♀♀ ^{14 seen by K. & P.} *A. gurgensis* ♂ 2 ♂♂.

Halictus rubicundus, *tumulus*, *caeruleus* ♀♀.

Sphex muniticornis worn ♀♀ frequent. *Stenopos* ♂♂.

Colletes 4-maculatus ♂♂ & ♀♀ abundant.

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6.7.30. Lucan demesne cont.

Ichneumon sp.? ♂. 1 ♂ 9.30.

8.7.30. Fri. day: sunny & warm: garden at Mayfield, Harold's Cross, Dublin.

Halictus leucopus ♀♀ collecting at *Campanula portenschlagiana* & *N.Z. Veronica* sp. ♂♂ abundant flying over print hedge!

9th July 1930. A fine day, after a dull drizzling morning. Warm, plenty of sun, some clouds, rather windy.

The Burren, N. of Portrane, Co. Du.

11.30 AM till 4 pm.

All labelled

Bombus lucorum, *agrorum*, *muscorum*, *hortorum* ^{Portrane N. Co. Du. AWS. 9.7.30.} & *Capidarius* ♀♀ seen.

B. terrestris ? 1 ♂, worn, with black face but white tail.

Psithyrus distictus 1 very fresh ♂: very yellow tail!

Halictus rubicundus ♀♀ on *Ranunculus acris*.

Colletes piceus 1 ♀ on *Leontodon* at N. end of Burren.

9.7.30 cont. Portman N. cont.

Crabro vasmali common at N. end of Barrow.

C. palnips ♂♂ & ♀♀ about old field ditch.

C. chrysostomus 2 ♀♀ on *Pteris latifolia* in fields

C. peltatus 1 ♂, very large ♀♀ in fields on *Pteris*
& at N. end in Spurge.

Oxybelus uniguttatus ♂♂ & ♀♀ common at N. end, on
sand, as well as on *Carduus arvensis*, &?

Periphragma gibbum 1 ♀ at S. end on wild carrot.

Tachysphex pectorator 1 ♂ on Wild Carrot

Periphragma plumbeum abundant. } particularly at
Cerophala maculata abundant. } N. end!

Bethylinus parvicornis 1 taken, 1 large, seen.

Athalia in fields! *Tenthredo arcuata* seen.

Pimpla brevicornis ♀♀ at N. end (? sp.). *P. maculata* ♀

Leucospota bellator ♀. *L. parallelus* ♂♂ common on
wild carrot.

L. errabunda ♀.

Glypta ♂

9.7.30 evening! Garden at Mayfield, Harold's Cross
Megachile willughbiella ♂♂ & 1 ♀ seen. DU.

M. ♂.

M. ? *monialis* ♀ seen to enter flower of pink
Snapdragon: always entered upside down, the
flower completely closing after it had gone in!

10th July 1930! morning: Front garden hedge, Mayfield, Harold's
Cross, &c. *Halictus leucopus* ♂♂ common on ground & flying along hedge!

147.

ARKLOW TRIP. July 1930.

10th July 1930. Left Dublin with George at 2 pm.
 & arrived Arklow at 5 pm. A fine hot day
 in Dublin but met a cold E. wind in Glen
 of the Dorn & thence mostly dull.

Stopped at Ballyhenry quarry, Co. Sl. 3-4 pm.

Hydraea ^{hyaline} ~~longicornis~~ ^{many} ♂♂ & ♀♀ abundant on stone heap.

H. confusa ♂ on branch of flower.

No other aculeates seen & no sign of life at
 "cliff".

10.7.30 cont

Walked to 2nd bay N of Arklow after tea!

Took a small tick in "Norton" on window, & a ♂
 braconid, ♀, in bath room.

11th July 1930. A dull morning, with some rain
 between 11 AM & 1 PM. Fine in afternoon, but
 gloom from 5 pm. on & all night.
 Stayed at Norton all day with George, playing cricket
 in aft. & evening.

148.

2nd July 1930. A glorious morning, ^{turning} ~~dull~~ dull, with
 chilly E. wind at intervals for rest of day after
 11 AM. Drove to Enniscorthy, & walked along
 down to Pigeon Head & back, S. Sl. 11 AM - 1 PM.

Bombus lapidarius ♀♀ abundant upon ^{very little} ~~many~~ ^{hills there!} ~~hills~~ ^{lucum} &
muscorum also seen, also 1 ♂ *jonellus* in car.

Andrena fucata, ♂ on spurge near Pigeon Hd.

Colletes piceitarsis ♂♂ & ♀♀ common.

Hydraea ♂ on spurge, another seen.

Pompilus plumbeus ♀♀ frequent.

Ceraphron maculatus ♂ near Pigeon Hd. (between this & outlet of river)

Tachysphex pectinipes 1 large ♀.

Stenobothrus *luteicornis* about 1 doz. ♀♀ seen.

Crabro 1 ♀ ? *palmipes* taken near Pigeon Hd. but lost!

Odynerus 3 *marginatus* ♂ & ♀ on Sea Pinks at Pigeon Hd.

Cladius pectinicornis 10♂.

Leiomastix parallela ♂♂ seen.

Red Admiral. ^{just} ~~just~~ ^{gorge}
 flew into car on
 drive home!
Gryllus seen.

149.

12-7-30 cont. afternoon. mostly dull & cool.
Caught several icks about Norton, W.

13th July 1930 (Sunday). SE wind, a depression approaching, mostly drizzling! Fine sky in forenoon & for an hour between 5 & 6 pm. Very heavy rain & gale from 7 pm all night.

Drove to Arreca, Co. WI. & explored old lane on N. side of valley 1/4 N. of Ballygarthen gate. There saw or took:—

Bombus agrorum, *lucorum*, *lapidarius* (1) ♀♀.
Andrena fucata, seen ♀♀ (2) on branch.

~~*Andrena fucata*~~
Centredella linde ♂ & ♀. *Atthia lineolata* seen.
Several icks:—

Leptocryptus

150.

13.7.30 cont. afternoon. Overcast!

Walked across Kypreki to first point & back but nothing out: very windy!

14th July 1930. Storm continues & mostly raining. In morning drove to Enniscorthy with George & spent an hour at mouth of Redcross River, Co. WI. Saw many *Colletes piceus* on flowers at 1st point S. of river.

15th July 1930 Storm continues after pause in night. Early morning fine, but dull after 9 AM. Drove to Deputy's Pass, Co. WI, 11.30 - 12.45 noon, where had been run before my arrival & things just going in an approach of cold drizzle from South:—

Bombus muscorum, *agrorum* & *lucorum* ♀♀.

Psithyrus distinctus ♂.

Andrena coitana ♂ & ♀. G.

♂.

Vespa sp. seen.

Atthia lineolata

Trichocampus exadactylus ♀ on *Eucalyptus*.

Antonax abrogathetus ♂ on N. side of pass near fallen living oak.

Pimpla turionellae ♂. *Phytodietus* ♂.

cont.

15.7.30 cont. Rain commenced at 12.45 & getting heavier - day advance had not ceased at 11 pm. At 5.30 pm. after heaviest rain saw Apis mellifera ♀♀ entering hole in ash tree on coast road N. of Ferrybank, here just noticed in 1926!

16th July 1930. Storm continues. More or less dull & raining all morning; during one lull of sun I took 1♂ 2♀♀ Colletes pinctus on Thyme in hollow ^{of dunes} S. of Merton gate, where I also saw a ♂ Megachile maritima.
Fine in afternoon, but very windy & no sun.

17th July 1930. Clearing! A fine morning along coast; "jim" inland. Drove to sandhills at Kilgorman, Co. DX 11^{am} till 1 pm.

Bombus lucorum, agrorum & lapidarius ♀♀
Some ♂♂ lucorum also seen.

Halictus villosulus ♀♀ in dune ^{N.} E. of road.

Pompilus pectorator ♀ in usual spot - N. of road.

P. gibbosus ♀ on coast by stream at foot of road.

P. plumbeus common.

Cerophora maculatus common.

17.7.30 cont. Kilgorman, W.X. cont.

Salix exaltatus ♂♂ & ♀.

Mellinus werneri seen by stream.

Crabro veruculi common.

Megachile maritima ♀ taken & another seen by stream carrying piece of leaf (? ^{piece} ~~mark~~ of Salix leaf!)

Some ichs. taken: mostly on coast by stream.

Simulium parvulus ♂♂ common

L. ♀ on spray N. of road.

Glypta

17.7.30 aft. Drove to Dublin

Stopped at Ballyhenry quarry for a few minutes.

Bombus distinguendus ♂ or fresh ♀ seen on heather.

Vespa norvegica ♂ on heath: 1st ♂ seen 1930.

Simulium bellator

Psithyrus fuscicornis ♂ seen on heath

Also a couple of ichs. & small braconids taken in motor between Arklow & Ballyhenry!

18th July 1930. Storm continues: strong NW-W wind & misty rain. Drove all back to Arklow: misty rain all the way as far as Redcross, but sun out at Arklow on arrival, though very windy & wind W-SW. Collected nothing!

18.7.30 cont. Afternoon: improving & some good sun bursts. Drove to Mr. Cork's egg-farm S. of Inch & back to Arklow. Collected along roadside on carrots &c. S. of Inch, Wx.
Pisithyrus rufestris ♀, Very small & very soon.
Bombus hortorum ♂.
Pimpla examinatrix ♂. *Lissonota bellator* ♂.

18.7.30. 5.30-6.0 pm. Sunny, very windy.
 Brinkfield S. of "merton", Arklow, Wx.
Lissonota bellator ♂. *Glypta ceratites* 1 ♂.
Athalia lineolata ♀. in sunny place.

19th July 1930 Storm continues: very high W-SW wind all night, barometer rising at last, misty rain all morning, getting warmer.

In afternoon drove to meeting of the Waters, Arona, WI. Here collected along railway line from 2.30 till 5 pm. Very hot, very little sun, but flies very bad & most things out.

Bombus hortorum ♂. Also *B. lucorum* & *agrorum* - ♀♀.

Pisithyrus barbatellus ♂ seen.

Andrena humilis 2 ♀♀, seen flying fresh, on ^{*Crucifera*} ~~herbaceous~~ flowers on side of ry. cutting between railway & river above the Castle Howard bridge (i.e. 1st bridge over river N. of meetings!). First record outside Cork & Kerry in Ireland & the first specimen I have taken.

A. coitana ♂ & ♀♀. } at same place

A. tarsata 1 ♂ } on Juncus.

A. subopaca 1 ♀, ^{rather worn!} ~~*subopaca*~~ } Also 1 ♂ *A. gryneus* 2 ♂♂. ^{*Hydrellia*} ~~*subopaca*~~ ♀

Nomada obtusifrons ♂♂ & ♀, very fresh. *Crabro dimidiata* ♂.

Crabro rufus ♀, *Nysson spinosus* ♀, *Gorytes mystaceus* ♀, all on *Angelica*.

Athalia lineolata in scrub.

About 15 spp. of ich. also taken. *Lissonota bellator* ♂ (not kept).

Glypta menaurator ♀. *G. ceratites* ♂. *G. varicosa* ♂.

Pimpla inquisitor a small ♀?

19.7.30 cont. Meeting of the Waters cont.

Foenia affector* ♀ on Angelica by ry. just above Castle Howard bridge.

20th July 1930. A dull day with keen N.E. wind.
 & no real sun till we were starting for
 home, then all blue sky till dark. Not much
 out!

Meeting of the Waters, Co. WI. 12 noon till 5 pm.

Bombus lapidarius ♂ very fresh & ♀♀. *B. lucorum* ♂♂.

Psithyrus distinctus ♂♂ seen. Add. to list of 19.7.30.

Andrena humilis 3 ♀♀ taken, 3 ♀♀ more seen, on ^{Crucian} ~~Crucian~~
 & one alternately on ^{Crucian} ~~Crucian~~ & *Hypochaeris* & seeming
 to prefer the latter. All along sides of railway
 cutting as before. One heavily laden ♀ seen to
 cross river & subsequent investigation suggested
 that the species might be nesting on old cart-tracks
 on E. side of the river opposite cutting! Want of
 sun however prevented this being proved. All ♀♀
 seemed fairly fresh!

20.7.30 cont. M. of the Waters cont.

Andrena coitana ♂♂ & ♀♀ common. *A. tarsata* ♂♂ & ♀♀
 a pair seen & fresh.

A. guzmanii 1 ♀ on *Farion* (2♂♂ heard).

A. dentulata 1 ♂ & 1 ♀ very fresh on *Solidago*.

Habitus rubicundus ♂♂ abundant, a few ♀♀, (some fresh).

H. villomulus 2 ♀♀, one very large. *H. freygessneri*, 2 ♂♂.

H. "meathenellus": Irish form: 1 fresh ♂.

H. leucopus ♂♂ & fresh ♀♀.

Nomada obtusifrons 2 ♀♀. *Sphex* ^{var.} *divinus* ♂ at bottom of
^{*H. rubicundus*!}

Hylaeus minutus, 1 ♂ without any *Rita tomentum* on head segment.

Apis mellifera (Dutch Bee?) nesting in big stumps.

Crabro rufus ♀♀ seen. *A. leucostoma* ♀♀. *C. v. maculata* 1 ♂
 2♂♂

Prenatus pallipes on bird near big stump at ry. bridge.

Megachile willughbiella ♀, var. *hibernica*.

Athalia lugens? *A. lineolata*?

Many spp. *ichneumonids*:— 2 ♀♀ *limbata* at big stump

& one ♀ *Meniscus impressus* seen there but missed.

Leucost. bellator on *Cosmosiph.* ^{*glypta bifoveolata* and} *G. longicauda* ♂ & ♀ on *Cosmosiph.*

Glypta ^{*limbata*}

Phytodietia

20.7.30 cont. Meeting of the Waters, WI cont.

20.7.30. evening. About a dozen larvae of
on *Salix cinerea* in brickfields
at Merton, Arklow, WI. taken into house.

Apparently nearly ready to pupate. On 12.7.30
there seemed a couple of days old & were all together
on their 2nd leaf of the willow, next to the
leaf the eggs had been laid in!

Empididae from *Salix cinerea* & *Salix alba*
emerged from 15th & 16th July.

21st July 1930. A stormy day, NW wind, very chilly,
& only some odd sun-blinks.

Meeting of the waters, Co. WI as before, 11.30-12.30 noon.

Spent the hour watching supposed burrows of *Andrena*
humilis but nothing seen. Hugh found *Stenogaster*
aurulenta ♂ sitting on the bracken. Took small
Braconid in net. *Bombus muscorum* 1 fresh ♂ on *Kniphofia*.

21.7.30 cont. Afternoon: very little sun, chilly.

Spent 2 hours in Webb's Glen, Arklow, WI.

Very little seen! About a doz. sp. of ticks taken!

Athalia lugens *A. lineolata*.

Glypta flavolineata ♀ in ivy. *G. areolaris* ♂. *Elytus fontinalis* ♂.

Pimpla alternans 11 ♀. *P. detrita* (?) ♂. *Perilissus filicornis* ♂.

Bombus jonellus ♀♀ on *Rubus*. *B. lucorum*, a group, *hortorum* ♂♂.

Bombus distinguendus ♀♀ on *Rubus* & *C. arvensis*.

Andrena coitana & *Andrena obtusipennis* ♂♂ seen on *C. arvensis*.

22nd July 1930. A dull day, with high barometer
& cold N-NW wind (strong).

Drove to Cahore, WX, but stopped for half an hour
in quarry near Banoge quarries, S. of Gorey.

11.30-12 noon. Banoge quarry.

Bombus terrestris 1 fresh ♂ on *Rubus*. *B. distinguendus* ♀.

B. hortorum, a group ♀♀.

No other bees seen, as too dull: a few ich. taken
& 1 ♀ each *Athalia lugens* & *lineolata*?

Glypta flavolineata ♂?

Lissonota variabilis? 1 small ♀.

22.7.30 cont. Cahore, Co. WX.

12.30 - 3.0 pm. Very little sun, though warm along coast out of wind. Worked strip of dunes S. of point & between that & track to beach.

[*Bombus distinguendus* ♂ flew into net on between Banoge & Cahore]

Bombus lucorum, *lapidarius*, *agrorum*, *muscorum* ♀♀
also *lucorum* ♂♂.

Psithyrus bartholomaeus ♂♂.

Andrena fucata ♂ one worn ♀ in Rubus.

Colletes montanum a few only seen ♂? & ♀ taken.

Colletes picinervis ♂♂ abundant; a few ♀♀ seen.

Tachysphex pectorator several large ♀♀.

Myiobes uniguttatus frequent on *Carduus arvensis*.

Ox. argentatus 100 at spurge.

Halictus confusus & *Pompilus plumbeus* abundant.

Pompilus rufipes 100, others seen on spurge.

Crabro ruficornis abundant.

Andrena signatorum.

Stenobothrus pictus ? ♀ on spurge near beach.

22.7.30 cont. Cahore, cont.

22.7.30 cont. Left Cahore about 3 pm & drove west, crossing Ballycane - Jorey road, to Carrickroe Hill, which ascended - rocky top, with bare ground (? burnt) & much *Erica cinerea* in flower at which many *Bombus*, including *B. jonellus* ♀♀, *B. lucorum* ♂♂ & ♀♀, *B. agrorum* ♀♀, *B. muscorum* ♀♀ very fresh! *B. lapidarius* ♀♀.

Also *B. hortorum* ♀♀ at *Taurinum* flowers.

On N. side of this hill is remnant of an old Oak-Birch wood, but too dull & cold for anything to be out. Near summit are many seedling willows growing on bare ground (alt. ca. 700 feet) & on them were taken several sets of *Pteronidea*?

larvae, which were brought home to rear.

Also larvae of *Puss Moth*.

Brachid Phaeostoma dentata Bz. taken on summit of moor at Carrickroe Hill, WX.

23 July 1930. Another dull day, with strong cold N-NW winds, but a little more sun, especially in the afternoon.

11-30 - 12-30 P.M. noon. Deputy's Pass, C.W.

Work path to "old garden" on E side of pass.

Bombus lapidarius ♀♀, *B. lucorum* ♂♂ & ♀♀, *B. agrorum* ♀♀.

B. hortorum ♀♀ & ♂♂.

Psithyrus barbutellus ♂♂ & *B. distinctus* ♂♂.

Andrena minutula? ♂♂ on banks round garden.

A. coitana ♀♀. *Nomada sturipennis* ♂♂.

Hylaeus confusus ♀.

Crabro varius

Trypoxylon claricorne ♂♂ & ♀ at usual stump.

"*Lissonota*" 2 ♀♀ on stump: 1 = *Meniscus impressor* ♀.

Lissonota palpatis ♀ & also a ♂?

23-7-30 cont.

1-30 - 2-30 Ralldrum, C.W. near goods station.

Too cold & very little sun.

2-30 till 4-50 p.m. Some sun, not much out.

Meeting of the Valleys, C.W., above Castle Howard Gate, as before. All west of river, along railway unless otherwise stated. 23.7.30!

Andrena lamellata 1 ♀ taken on railway at Hypocorvis, & one ♀ dug out of bonnet on trackway on E side of river thus proving that the species nests there; still no sign of ♂♂.

A. dentifrons 1 ♂, 1 ♀ seen on Solidago.

A. coitana ♂♂ & ♀♀ seen. [*A. minutula*? 1 ♀ seen].

Nomada sturipennis ♂, *N. sturipennis* a small ♀. W.S. 11.1.32!

Megachile versicolor 1 ♀ var. *litorea* on thraped flower.

Crabro podagraceus 1 on ivy at bridge (road to C. Howard Gate).

C. varius & *C. vagans* ♀ seen.

Salix exaltata ♂ & ♀♀ on E. bank of river.

23. 7. 30 cont. Meeting of the Waters cont.

Teuthrodella peruviana ♀♀. *T. livida* ♂ seen.

Pimpla orivora ♀. *Bassus tricornatus* 1♂.

Glypta mensurator ♂ & ♀ (?♂). *Phytodictus geniculatus* ? ♂.

Polyphincta varipes ♀

24th July 1930. A fine morning, but turning dull after 11 AM; subsequently only a few blinks of sun, wind W., not so cold; yet little out.

Meeting of the Waters, Co. WI. as before

1. Left bank of river where *Andrena humilis* nests.
2. Right bank of river up to old sawmills (Barnelli)
3. Ry. bank &c. at ry. bridge, beside old sawmills.

Bombus lapidarius ♀♀, *B. lucorum* ♂♂ & ♀♀, *B. agrorum* ♀♀.

B. muscorum ♀♀ at heather (*S. cinerea*) by railway below 3.

B. hortorum ♀♀. *B. derhamellus* ♂

Psithyrus ♂, ♂ on *Rubus* by railway below 3.

P. distinctus ♂♂. *P. barbatus* ♂♂ & ♀♀.

Andrena viciae ♂♂ & ♀♀.

A. minutula ♂

24. 7. 30 cont. Meeting of the Waters cont.

Andrena humilis many ♀♀ seen at burrows on old track through the scrub at 1. Not a trace of a ♂.

Helictes rubicundus ♂♂. *H. albipes*, fresh ♂, ♀♀ seen.

H. tumulorum, fresh ♀ seen. *Sphex*, *Stenobothrus*, many seen ♀.

Formica stans ♂♂. *F. rufipes* 2♀♀ on ragwort at 1.

Crabro rarin frequent & nesting in mud with *A. humilis*.

Mellinus arvensis seen.

Odynerus ruficornis ♀ at 3. *Vespa* spp. (♂♂ & ♀♀) seen.

Pompilus ruficornis ? ♂ at 1.

Atalia at 1 & 2.

Automalus albipennis ♂ in scrub at 1.

Glypta mensurator ♀ (?), stopping thistle head (*G. palustris*) with tubes at 2. *G. evanescens* 1 small ♂ at 1.

Pimpla orivora ♀ at 1. *P. inquisitor* 2♀♀ at 1.

Phytodictus ♂ at 1. *Lampronota caligata* 1♂ at 2 & 3.

P. distinctus ♂ at 1. *P. barbatus* ♂♂ & ♀♀ at 1.

25th July 1930. Another mainly dull day: wind round to S-SE, very strong: depression approaching: only short spells of sun in forenoon, none later. Clara, Co. WI.

1. Right bank of river for 1/4 mile below bridge.
2. Oak-woods & sandflat (1 mile below bridge) on left bank of river.

Colletes succinctus 1 fresh ♂ at 1 on gravel flat.

Bombus jonellus 1 ♂ in woods. B. agrorum ♀♀.

B. lucorum ♀♀ & 1 fresh ♀ seen in woods.

Andrena mundanella 1 ♂ at 1. A. tarsata a few ♀♀ at 2.
♀ 2 = A. coitana ♀♀ at 1.

Halictus villorum ♀♀ at Crepis river at 1.

H. rubicundus ♂♂ abundant at 2, some at 1.

H. albipes 1 ♂ at Crepis at 1.

Nomada obtusipennis 2 ♀♀ at 1 on Crepis.

Compilum pictum 1 very fresh ♀ on Angelica at 1.

[C. approximatum. None seen at 1 on gravel flat.]

Crabro rapus 1 ♀ on Angelica at 1.

C. prodigiosus 4 ♀♀ on Angelica at 1.

C. varius frequent at 2.

C. peltarius ♀♀ very abundant at 2: more abundant than I have ever seen before on the sand-flat; the only one seen carrying a fly did so under the right hind "vater".

25.7.30 cont. Clara cont.

Mellicerus arvensis in extraordinary abundance in field at 1

Cathalia at 1 & 2.

at 2

Centrodella virida ♂♂ seen at 2

Automalus albipunctatus 2 ♂♂, 1 ♀ in oak-woods at 2.

Pimpla rufata at 2.

Glypta ceratites at 1.

Polysphincta varipes ♀ at Oenanthe crocata at 1.

Phytodietus

Lissonota cruciatunda 1 ♂ at 1.

Lissonota

♂♂ at 1.

♂ at 2.

Homocidus pictus? ♂ & ♀ at 1.

26th July 1930. After a wet night, a soft sun
day with lots of sun, wind rather high S-SW.
Flowers in afternoon.

Rathdrum, Co. WI: right bank of valley from
station to Arundale

1. Near station. 2. near Arundale footbridge.

Bombus lucorum ♀♀, + 1 or 2 ♂♂. B. agrorum ♀♀.

B. muscorum several ♀♀. B. lapidarius ♀♀, 1 ♂.

Andrena coitana ♂♂ + ♀♀. A. fucata? old ♀ seen on
Rath at 2.

Halictus confusus, H. fuscicornis ♂♂.

Sphacura affinis ♀ seen at 1.

Nomada sturpion ♂♂ + ♀♀.

Mellicope arvensis ♂♂ abundant, also a few ♀♀.

Gorytes myrtaceus 1 ♀ seen on Angelica below road.

Crabro varium frequent. C. rufus common.

[No other spp. of Crabro seen during day & no sign
of C. aphidum at either of its stations]

Pemphredon shuckardi 1 ♀.

Prospila nigerrima ♂♂ + ♀ seen near 2. Also ♂ at 1.

Salix exaltata ♂♂ + ♀♀ at 2.

26-7-30 cont. Rathdrum cont.

Tenthredo arcuata only a few seen: seen unusually near
this river!

Tenthredella linida a few ♂♂ seen at 1.

Atalia

Selandria morio 1 ♀ seen 2. S. sericea 1 ♀, ♀ at 2.

Tenura detrita ♀♀, many, on alder at 2. ✓ R.C.B.

Zurusa fasciata ♀ sitting on Salix caprea leaf at 1.
Stelopus gagate, 1 ♂.

Pimpla rufata ♀ at 1.

Leisonota cylindricornis 2 ♂♂, 1 ♀.

Leisonota femorata 4 ♀♀ at big log at 2. L. dorsalis 1 ♀

L. bellator ♂♂ + ♀♀ on Angelica

Glypta curvipes

Leisonota cylindricornis

27th July 1930. A wild day, with strong S.W. wind
 & showers passing over hills all day (for a while),
 much sun near coast & inland to Broughan.
 11 AM till 12.30 noon.

Sandhills ^② S. of Enniscorthy, Co. WI. & scrub in valley
 inland of road (1).

Bombus distinguendus ^{a small ♂} on *Thymus*. *B. lucorum* ♂ + ♀♀.

B. agrorum, *muscorum* & *lapidarius* ♀♀.

Colletes picistigma ♂♂ + ♀♀ fresh & abundant on
Carduus arvensis, *Lehmannia nitidissima* + ♂ at 1, on *Sparganium* at 2.
Megachile mixta 1 fresh ♀ at *Thymus* ^{at 2}; *Andrena*
 cut in scrub at 1.

Odynerus ♀ seen at 1 (probably *parietarius*!)

Crabro varius ♂ at 1

Atthia at 1. *Allantus cinctus* seen at 2

Fenusa debilis ♀♀ on Alder at 1. *Tenthredo areolata* at 1

Proctosyncha praecipua ♀ amongst bracken & thistles at 1.

Pimpla detrita? ♂ at 1.

27.7.30 afternoon. Very stormy, but considerable sun.
 Drove via Inch, to Killinierin, Ballynestrass, &
 Hollyport to Forey & home by main road, Co. WX.
 Stopped to collect at:—

1. = Larch Hill, S. of Inch [labelled "near Inch"], by roadside.

2. = roadside at Killinierin.

3. = heath & boggy pasture N.W. of Ballynestrass.

Bombus distinguendus ♂ + ♀♀ at 3. *B. lucorum* & *jonellus* ♀♀ at 3.

B. hortorum ♂ on *Rubus* at 1 + 3. *B. agrorum* & *muscorum* ♀♀ at 3.

Psithyrus campestris ♂ var. *franciscanus* (1. ♂ 1930) at 1.

Andrena tarsata ♀♀ commonly nesting in ditch (earth & stones) &
 amongst Calluna on heath path at 3. Quite fresh.

Halictus nitidissimus ♀ at 1. *H. rubicundus*, *albipes* & *celarector*
 ♂♂ at 1.

Salix exaltatus ♀.

Glypta ceratite, ♂, at 1 or 2? *G. longicauda* 1 ♂ at 2?

Lissonota bellator ♀ seen at 1. *L. errabunda* ♂♂ + ♀♀ (?) on Wild carrot at 2.

Exetastes guttatorius ♂ at 1 on *Heracleum*. *Banchus volutatorius* ♀
 (at 2).

Pezomachus ♀, very small, at 3?

28th July 1930. A wild day after a fine night. Heavy mist rain from 11 AM till 1 pm: afternoon with terrific showers & fine intervals but wind (SE-S) so strong that little is getting out.

2-30 till 4 pm. Sandhills at Kilgorman, Wx
Bombus terrestris ♂♂ + 1 fresh ♀ at *Carduus arvensis*.
B. lucorum ♂♂ + ♀♀. *B. agrorum* + *lapidarius* ♀♀.
Psithyrus barbutellus ♂.
Colletes picistigma a few seen.
Salix exaltata seen on Wild Carrot.
Paspalum plumbum + *Ceroplasta munitata* a few each seen.

About a dozen ich. taken by stream behind dunes.
Euclyptus ♂ + ♀.

28.7.30. 4.30 pm. A few specimens taken on carrot
 at railway bridge 1 mile S. of Inch station.
Athalia lineolata.

29th July 1930. Almost a wet day so frequent - were the heavy showers & though hot sun between them no collecting was possible.
 Took a fresh ♀ of *Bombus derhamellus* in
 brickfields behind "Merton", Ashtown, W.I.
 on *Ajuga reptans*.

30th July 1930. A showery day, with fine hot sun between. With J. F. Perkins!
 Drove via Carrer to Kilcanny Bridge, Co. CW.; then to
 Scarawalsh Bridge + Glone sand pit, Co. WX; then home.
 Stopped beyond Cranford, Co. WX, to look for sawfly larvae but
 none seen. Two *Crabro* taken by J.F.P. on *Angelica*
 ? *C. chrysostomus*.

12-30 - 3-30 PM. Kilcanny Bridge, Co. CW.

Bombus derhamellus 1 ♂.

Andrena rosae 1 very fresh ♂ (2 ♂ brood) on *Carduus arvensis*
 at top of field N. of road, S. of bridge.

A. clunensis 1 fresh ♂. *A. coitana* ♀♀.

A. minutula ♂♂ (2 ♂ brood) ?

Halictus rubicundus, *calceatus*, *albipes*, *tumescens* ♂♂.

H. rubicundus, *villosus* ♀♀, also fresh *tumescens* ♀.

Psomoda rufipes ♂ + ♀.

30.7.30 cont. Kilearry Bridge, CW. cont.

Crabro varius.

Salix exaltatus ♂ taken, ♀♀ seen.

Myrmica schencki 1♀, running on path at usual place, with
M. ruginodis & scabrinodis.

Lasius fuliginosus ♂♂ & ♀♀ at nest, as usual.

Perithous divinator ♀. Leimonota pallator 20♂♂ (1a fresh).

4 pm. Scarra creek Bridge, G. Wx.

Colletes montanum. A few ♀♀, but no ♂♂, still about.

30.7.1930.

4.15 - 5.0 pm. Sandpit at Clonsilla, G. Wx.

Very little to be seen but common things!

Colletes danicorum 1 very large worn ♂ at cliff.

Megachile 1♀ on Knopwood.

Myrmica melanocrepida ♀ seen enter burrows under small pebbles.

Pimpla brevicornis ♀.

Agathidium

31st July 1930. A fine day, but mainly dull & cool E. breeze.

Brittas Bay, S. of Mizen Head, G. Wx. Sand-dunes.

Bombus terrestris a few ♂♂ on Sea Holly. B. lucorum ♂♂ & ♀♀.

B. jonellus ♂ faded (J.F.P.). B. hortorum seen. B. agrorum ♀♀.

B. muscorum ♂♂ & ♀♀.

Prithopus barbutellus ♂♂.

Colletes picistylus common.

Halictus rubicundus ♂♂.

Hyposus minutus ♀?

Odynerus 3-marginatus ♂ at Mizen Hd.

Pompilus rufipes very fresh ♂ & ♀ given to J.F.P.

" gibbus ♀ (?) (J.F.P.). P. plumbeus (abundant).

Tachysphex pectinifer several ♀♀. Ceropales maculatus

Sphex luteus ♂ taken, ♀ seen by J.F.P.

Allantus cinctus 1. Tenthredo areolata frequent.

Large Cynipid ♂ & ♀ taken in cop. Also odd specimens frequent.

Leimonota parallela ♂♂ & ♀♀ common. L. connexa 10♂. Pimpla brevicornis ♀.

Perithous signatorius
Stenichneumon pictus ♀.

Gremastus geminus ♂, ♀♀ seen.

1st Aug. 1930. A. had a day in our van! Wind SE, E, to NE & heavy rain all day & most night. Down to meeting of the Vaters to collect larvae of sawfly seen previously on Hazel leaf, which S. Perkins thinks might be Pteronidea melanoclypea (Clerk).

On 21st June 1931 an ich emerged from one of above which seems to be a ♀ Ecliptus proclerus, Schmied., described in Opuscula p. 2559 from a ring 4 or 5.

2nd August 1930. Cleared about noon when wind swung round to SW-W.

12 noon till 4 pm. Sand dunes & cliffs at Arskintony, S. of Arklov Head, Co. WI. Some sun, heavy showers.

Bombus terrestris 1 faded ♂. B. lucorum ♀♀.

B. hortorum ♀♀. B. muscorum ♀♀ (2 only), B. agrorum ♀♀.

B. lapidarius ♀♀. B. derhamellus several ♂♂.

Psithyrus rupestris 1 ♂.

Colletes succinea ♂♂ & ♀ very fresh (J.F.P.). C. pusilla ♀.

Hylaeus hyalinatus ♀.

Halictus ruficinctus 1 ♀ seen. H. calceatus, albipes, nitidusculus

& punctatissimus ♂♂ on S. arvensis & Rap. port. H. villorum ♀.

Salix exaltata ♂♂ & ♀. Pompilus pictus ♀.

Cerophora maculata.

Anthus arvensis.

2.8.30 cont. Arskintony cont.

Tenthredo areolata

About a dozen ichs. Pimpla turionellae 2 ♂♂. P. flavicoma 1 ♂. P. debilis ♂.

Glypta ceratites 1 ♀. G. nigrotuberculata (long toothed!) 1 ♀.

Aeroceros maculatus, 1 large ♂. Exochus, illucens ♂.

Promethes ♂.

2.8.30. 4-30-5-30 pm. River side & railway, 1 mile W. of Arklov, Co. WI. (i.e. at "Bully Lane"). Very sunny.

Bombus lucorum, agrorum, hortorum, lapidarius ♀♀.

B. derhamellus ♂ seen.

Psithyrus luctuosus ♂♂ common on Vaccinium.

Andrena dorsalis ♂♂ & ♀♀ common on Rap. port. & Solidago.

A. citreola ♀♀. Psithyrus rufipes ♀♀. M. obtusipennis ♂♂ & ♀♀.

[Megachile villaghiellii ♀ at 7-30 pm. on Heath leaf. George M. Stiller] when

Salix exaltata ♀.

Gorytes mystaceus ♀. given to J.F.P.

All specimens given to J.F.P.

3rd August 1930. A wet morning with much misty rain or drizzle throughout the day; followed by a wet night. Some short sun bursts in afternoon.

From J.F.P. to Glendalough & walked to upper end of Upper Lake & back to R. Hotel. Discovered a fine looking gravel flat between Glendalough & Derry-Lawn House, which must be looked at next year.

1-30 till 4.0 pm. Valley below fall, Glenmaeuan, Co. WI.

River in great flood, full very fine; only some odd snoutroats & very little out. Collected some larvae of *Pteronidea* on small bank of *Salix cinerea* x *aurita* (?) by river near swamp. Some only just hatched some still in egg.

Bombus agrorum, *muscorum*, *lucorum* & *lapidarius* ♀♀ seen.
Andrena tarsata 2♀♀ on *Angelica* in swamp.

Terthra perkinsi ? ♀.

Pimpla brevicornis ? ♀. *P. tunicellus* v. *flavicornis* ♂.

P. maculator small dark ♀. *Phytodietus* ♂.

Limonia bellator ♂ & ♀ seen

Tryphon *maculipes* ♂. *Tryphon* *maculipes* ♂.

Perilissus filicornis ♂. *Perilissus filicornis* ♂.

Yungipicus *maculipes* ♂. *Yungipicus* *maculipes* ♂.

[at 7 p.m. I took a ♀ *Proctotrupid* at *Salix* in old lane leading to Templemore graveyard, N. of Ferrybank!]

4th August 1930. A dull morning, turning fine about midday & a glorious afternoon (2 till 5 pm.) with a terrific storm between 5 & 6 on way home.

From via Debaty's Pass, & Garryduff X roads to head of Devil's Glen, Co. WI.

1-15 AM. Stopped between Drumdangan & Ballydooling (N of Glencady) on way to Garryduff to look at willows for larvae but none seen.

11-30 - 12-30 Stopped at Garryduff X. Road to collect sawfly larvae on willows (*S. cinerea* & ? *cinerea-aurita*). Several families very young or at least 3 kinds of *Pteronidea*.
Pteronidea *cinerea*

1.0 till 5.0 pm. Devil's Glen, WI. From above.

Bombus agrorum, *muscorum*, *lucorum*, *pinellus* (?)

B. lucorum ♀♀. *B. lapidarius* ♀♀ also.

B. duhamellus 1 ♂ (George!). Also ♂♂ of *lucorum*, very yellow.

Psithyrus horreorum, frequent, ♂♂. *B. distinctus* ♂.

Devil's Glen cont. 4.8.30.

Halictus rubicundus, *calceatus*, *albipes*, *tumalorum* ♂♂.

H. rubicundus & *villosum* ♀♀.

Hyloaema hyalinatus ♀.

Sphærocerus affinis ^{large} ♂. *Sph. affinis* ♂ (J.F.P.).

Mellinus arvensis ♂♂ & ♀♀

Crabro retratus? not seen further down in log above
top of wood. *C. rapus* 1 ♂ seen in Angelica in glen.

Odynerus 3-fasciatus? 1 seen at Ratus.

Ceropalus maculatus. A highly coloured ♂ on Angelica at top bridge over side glen.

Athalia

Tenthredo perkinsi

Bladina pectinicornis ¹⁰ on ash in glen.

Many ichneumon in glen but mostly ♂♂ of *brachyneumon*,

Amblytelus, *Phaenocarpa* & ? none of interest seen.

Glypta ceratites ♂ & ♀. *Leionota transversa*? ♀ with reddish abd.

Triclistus large

Heteropelma calcator ♀

5th August 1930. A fine sunny day with soft SW breeze & new depression approaching at night.

Kilcavary Bridge, Co. ^{CW.} ~~FF.~~ With J.F. Perkins.

1.- Glen of the Glashanagh River as before.

2.- ramp on left bank of Slaney above, 200 yards.

Kilcavary Bridge, at foot of small tributary glen.

Bombus lucorum - ♂♂ & ♀♀. *B. agrorum* - ♀♀.

B. hortorum - ♀♀. *B. lapidarius* ♀♀. *B. deshayesi* ♂♂ ¹⁰².

Psithyrus barbutellus ♂♂ & several fine ♀♀.

Andrena minutula ♂ seen in corn field between roads; ♀♀ on path to marsh at J.F.P.

A. denticalata several fresh ♀♀ on ragwort.

A. marginata, very fresh ♂ on *C. palustris* in marsh at 1.

A. rosae, 1 ♂ each & many ♀♀ on both sides of old road west of bridge on right bank of stream at 1 & at 2. All on Angelica, except 1 ♀ on *Geranium*. 1 ♀ on Angelica then disturbed flew to flower head of Meadow Sweet & seemed to rest in it.

A. coitana a few ♀♀ seen.

Halictus rubicundus & *tumalorum* ♂♂ & ♀♀.

H. villosulus ♀ at top of corn field.

H. calceatus & *albipes* ♂♂.

S. 8. 30 cont. Mileary Bridge, CV cont.

Homada rufipes ♀ seen to J.F.P.

Sphex spp. a large series of ♂♂ on angelica at 2
one small specimen ^{with} almost black abdomen. These seem
to be divisible in to ^{very} small divisions + middle-aged
divisions. No ♂ or ♀ taken on flower heads with
them.

Crabro rufus ♂♂ + ♀♀ on angelica at 1 + 2.

C. varius path to (J.F.P.).

C. podagricus ♂♂ + ♀♀ common round angelica at 1 + 2.

C. chrysostomus ♂♂ on angelica at 2.

Mellinus arvensis abundant.

Pemphredon lethipes ♀ ? on angelica at 2.

P. lapidaria (J.F.P.).

Odynerus rufus at 1 + 2.

Verpa norvegica, *cyatharia*, *rufa* ? + *vulgaris* seen
on angelica at 2.

Athalia

Selandria rufa ♂ at 2; also ♀♀ at 1 (J.F.P.)

Tenthredo arcuata 2 pairs in cop. taken + kept
ruficornis.

S. 8. 30 cont. Mileary Bridge, CV cont.

Anthrenella atra ♀ on angelica munching "Soldier Beetle"

Phyllotoma vagans ^{RCLB} ♂ on alder in marsh (J.F.P.)

Stenoglossus lineata ♀ (J.F.P.).

Schneemon lugens ♂ on angelica at 2.

Pimpla robusta "robust" ♀ at 1.

Glypta "menurata" ♀♀ of 19th both forms, i.e. with normal
+ very long ovipositor. ? one or two ♂♂. ♀♀ very few.

G. ♂ with very elongate body

Leiomata ♂, " " " " + red apices to segments.

M.S.S. saw Red Admiral by path at 1.

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6th August 1930. A fine day but not much sun till the afternoon, then too late. Strong S.W. wind, rising glass. Cahore, Co. WX. Still J.F.P. & 15 Chalony.

Bombus distinguendus ♂♂ & very fresh ♀♀ on head & in lanes.
B. terrestris ♂♂. *B. lucorum* ♂♂ & ♀♀. *B. agrorum* ♀♀.
B. desertorum ^{*B. jonellus* ♂.} ♂♂. *B. muscorum* ♂♂ & ♀♀, very fresh.
B. lapidarius ♂♂ & ♀♀. *B. hortorum* ♂♂, ♀♀ & ♀♀.
Psithyrus campestris 2 black ♂♂ & 1 ♀, 1 pale ♂.
P. barbutellus ♂♂ & ♀♀ common; one very fresh ♂ has strong yellow band on tail!
Andrena gurguana, fresh ♂ & ♀ 2 & brood in lanes behind dunes.
Colletes montanum 2 ♀♀, very common, on *Gordonia arvensis*.
Melitta maculata
C. piceitarsis ♂♂, common, & ♀♀, some very fresh.

Crabro rasmanni abundant. *C. rufus* ♂ & ♀ as *C. arvensis*.
Mellinus arvensis abundant.
Compilus rufipes 2 (Perkins). *C. plumbeus* abundant.
P. gibbus ♀ in lanes behind dunes.
Ceropales maculatus abundant.
Tachygaster pectinipes frequent.
Hedychridium ardens common.

184.

5.8.30 cont. Cahore, Co. WX. cont.
Myiobes usqueatus 1 ♂ on *G. arvensis* (seen to i.f.P.).
D. uniglumis, common.
Bethylus jurei ♂ & ♀ Chalony.

Anthreda arenata & *Altheda* seen.
Callantus vici ♂

Leucostoma parallelus ♂♂ & ♀♀ seen.
Glypta nemorosus (each typical ♂ & ♀ with long ovipositor, the latter 1 ♂ with considerable amount of red on abdomen & ? same sp.).
Pimpla tunicornis ♀, very small.
Banchus volutatorius ♂ & ♀.
Cremastus geminus ♀.

7th August 1930. A fine day, after a dull morning but with strong SW-W winds, storms & little sun till 3 pm. Drove via Shillelagh to Tullow, then via Mountbarr Bridge to Hacketstown & home via Tineahely. 70.5 miles.

~~12-30~~ Stopped for lunch

12-30 Stopped at ry. bridge 1 mile NE. of Tineahely station. Very good marsh full of horsetails & rushes for *Solenus* in May. Collected a few *Attaga* & 1 ich. Saw *Tentredo arcuata*.

7.8.30 cont.

1.30 - 2.0 pm. Stopped on roadside 3/4 mile NW. of Shillelagh, Co. WI. Poor ground: nothing of importance seen.

7.8.30 cont.

2.30 - 3.0 pm. Stopped on roadside about 1 mile E. of Green River, Co. WI. Here plenty of *Scaphium arvense* & *Knopweed*.

Bombus lucorum, *lapidarius*, *muscorum*, *agrorum* & *terrestris* (♂ only)

7.8.30 cont.

Halictus albipes & *calceatus* ♂♂ only.

No other aculeates seen!

T. arcuata abundant & variable: series taken by J.F.P.

Several ichs: but mixed with rest lot.

7.8.30 cont.

3-15 pm. Roadside at Tullow ry. station = 1.

3-20 - 4-0 pm. Old sandpit 1 mile (?) SE of Tullow on road to Rathglass Bridge: = 2. All Co. CW.

4-15 - 5-0 pm. Old sandpit just E. of Mountbarr Bridge, nearly 4 miles N. of Tullow, Co. CW. = 3.

Bombus terrestris 1♂ at 2. *B. lucorum* common; one dwarf ♂ on Ragwort at 3 only signs of *jonellus*!

B. muscorum & *agrorum* common. *B. denhamellus* ♂♂ at 1, 2 & 3.

B. hortorum 1♀ at 3. *B. distinguendus* ♂♂ & ♀♀ at 1 & 2, rare; one very small worker at 2 (J.F.P.).

Psithyrus barbutellus ♂♂ at 1, 2, 3.

Halictus albipes & *calceatus* & *leucogaster*; ♂♂ at 1, 2, 3 (last only at 2).

H. albipes fresh ♀♀ at 3.

Odynerus at 3 (J.F.P.)

Pemphredon shuckardi 1♀ on stump at 3.

P. lethifer 1♀ at 2 (J.F.P.) on Wild barwort.

7.8.30 cont. Tallow district cont.

No Verpa seen.

Attelia spp. & T. areolata common.

Exochus incidens ♂.

Exochus incidens ♂.

8th August 1930. A dull day, with misty rain in late afternoon. Co. WI.

Drove to head of Glenmalur & collected about ford of Baranore & moraine from noon till 3 pm. Warm, little wind but only one or two glimpses of sun & very little out.

Bombus lucorum & agrorum a very few ♂♂. B. hortorum 1 ♀.

[Andrena fusca not yet out!]

Halictus albipes (?). ♂(?) seen by J.F.P., ♀(?) seen by A.V.S.

Mellinus arvensis common.

Crabro palmipes ? 1 ♀ taken, others seen on bracken, at 1,000 ft. (J.F.P.)

Myrmica ruginodis "nearctic". ♂♂, ♀♀ (♂ & ♀) seen.

Glypta elongator ♂ & ♀ on rushes in marsh.

G. bicornis v. rotundata ♂ in rushes with last.

8.8.30 cont. Baranore cont.

Several other spp. of ichs taken on Salix aurita by circular moraine.

Melacetus flaviceps (where taken: I don't remember: it might just possibly have come from the moraine! AWS).

Chelonus ♂ (? latrunculus, Marshall).

Golerus areus 2 very metallic ♂♂ taken by J.F.P. on S. aurita at 700 ft. above circular moraine.

8.8.30 cont.

Drove over pass from Grampoff to Agharnagh, Co. WI.

Collected ichs on Angelica just before Agharnagh &

also in woods at Strangalia marsh in woods opposite

Coilballintaggart, where J.F.P. took one ♂ Strangalia repens.

but rain coming on we had to leave.

Ichneumon

♂. J. ♀.

Glypta minorator 2 ♀♀. Leionota villator ♂ & ♀.

Leionota cylindrat ? 1 ♂, rather peculiar specimen!

9th August, 1930. A fine warm day, with sun in morning & afternoon, dull at midday.

P. Bann (left bank) from Bann Bridge to sandpit on railway at Clone (3 miles N. of Enniscorthy)

C.W.X. Noon till 4.30 pm.

Bombus agrorum on Carduus palustris & Knapweed in fields, along railway & in sandpit. ♂♂ & ♀♀ frequent.

B. lucorum ♂♂, ♀♀ & 1 fresh ♀. B. hortorum a few seen.

B. desertorum ♂♂ frequent. B. lapidarius ♂♂ & ♀♀.

B. agrorum abundant. B. muscorum frequent.

~~Pistyrus~~ B. distinguendus a few ♂♂ & large ♀♀.

Pistyrus barbutellus ♂♂ seen.

Colletes ♀♀ on carrot, Ranunculus luteus, & Achillea millefolium in sand pit.

Andrena dentifrons 1 ♂, numerous ♀♀ on Knapweed.

A. cristata ♀♀ on Angelica, &c.

Sphex affinis & divinus ♂♂ & fresh ♀♀ on Wild Carrot on ry. by sand pit.

Halictus rubicundus ♂♂ & fresh ♀♀ very abundant.

H. calceatus, albipes & tumulosus ♂♂, scarce.

H. villosulus ♀♀ in compact colony on "cliff" in sand pit.

Megachile centuncularis 1 very fresh ♀ on Knapweed. (A.W.S.)

1 ♂ & ♀ on Knapweed (J.F.C.): in sand pit.

9-8.30 cont. Clone cont. C.W.X.

Mellinus arvensis abundant.

Crabro peltarius a few ♀♀ still at work in sand pit.

Aspilota tumida 2 ♀♀ near entrance to pit from ry.

in 1921.

Myrmica melanoccephala 3 ♀♀, with red heads, with last.

Bethylus 2 very small ♀♀ (?), on "cliff" at

along of H. villosulus.

Odynerus parietum 1 ♀ in sand pit at Ranunculus luteus.

Vespa rufa, ulmaria, norvegica & cyanea ♀♀ & ♂♂ of last two.

Selandria serena ♀♀ on Wild Carrot by ry. Athalia

Tenthredo areolaris. Allantus glabratus 1 ♂ on Wild Carrot.

About 20 ichs: many seen but not bothered about!

18th August 1930. A warm wet day! a few flurries of sun about 3pm. mostly drizzling rain, very close.

Meeting of the Waters, Arreca, Co. NI. 11-30 till 4.0pm.

Left Park of Arreca for 1/2 mile above ry. bridge at Castle Howard gate, including big stump at bridge = 1.

Right bank along railway to 1st bridge over lane = 2.

Bombus lucorum ♂♂ & ♀♀. *B. lapidarius* ♂♂ & ♀♀.

B. desertorum ♂♂. *B. hortorum*. *B. agrorum* ♀♀.

Psithyrus barbatus ♂♂.

Andrena fuscipes ♂♂ very fresh flying over Calluna on ry. embankment above cutting, as in 192 at 2.

A. coarctata ♀♀.

Halictus rubicundus ♂♂, some, & ♀♀. *H. albipes* & *calceolus* ♂♂.

H. fuscicornis 1 ♂ seen on Solihay at 1.

Nomada rufipes 2 ♀♀ at 2.

Colletes succincta ♂♂ very fresh with *A. fuscipes*.

Hylaeus confusus ♀ at 2 on Anglica.

Melitta arvensis common.

Crabro leucostomus ♂ & ♀♀ nesting in stumps at 1.

C. prodepinus nesting in stumps at 1.

C. chrysostomus ♀ on Anglica at 2.

10-8-30 cont. Meeting of the Waters cont.

Salix virens ♀ seen. *Athalia* & *Pentredo arenata*.

Hoplismenus, *maurus*? or taken by J.F.P. on railway just above bridge at Castle Howard gate.

Pimpla inquisitor? ♀. *Glypta crassicornis* ♂. *G. mensurator* ♀.

Phytodictus small ♀. *Schizopyga atra* ♂. *Premises impressor* 1 ♂ on big stump at 1.

Strangalia aurulenta. A large colony was present in big stumps at 1 (J.F.P.). This being beech & much of the bark still being on many specimens had perished having failed to pierce the bark. Bark is very hard: some had cut through the bark undoubtedly & many made their escape. In places where there was no bark.

193.

11th August 1930. A dull day with some misty
showers, till 3pm, then fine & sunny, but too late.

Clara, Co. WI. Oakwood & sandflat = 1

Upper edge of oakwood along the moors = 2.

Bombus agrorum ♀♀ & two worn ♀♀ still working
at 2. *B. lucorum* ♂♂ & ♀♀. *B. muscorum* ♀♀ at 2.

Psithyrus barbutellus ♂♂ at 2.

Vespa spp.

No other aculeates seen!

Athalia lutea ♂♂. *Tenthredo arcuata* seen.

Pteronidea dispar ♂ taken in wood & small

Automachus albopunctatus - taken by J. F. P.

Chloron 2 " " in *Vaccinium*

Mesochorus ♂ at 1.

taken on bird trunk behind sand-
flat.

Mesochorus ♂

Pimpla ♂

194.

12th August 1930. A stormy day with very strong
S.W. wind. Good run at times.

11-30 - 1pm. Marsh, above Pennyconquits Bridge,
Enniscorthy, Co. WI. Also on Wild Carrot ♂ along roadside
N. of same bridge = 2.

Bombus lucorum ♂♂ & ♀♀. *B. lapidarius* ♂♂ & ♀♀.

B. agrorum ♀♀. *B. muscorum* ♂♂ & ♀♀. *B. desertorum* ♂♂.

Psithyrus distans 1 fresh ♀ on roadside on *Thymus*.

Colletes picistigma ♂♂ on wild carrot at 2

Halictus villorum ♀♀ at 2.

Chrysus ignita on carrot at 2.

Athalia very abundant.

Selandria muric ♀ & ♂♂.

Most ikes. collected in marsh; rest all on carrot at 2.

197.

14th August. 1930 cont. Kilcarrig cont. Co. CW.

Hydraea minutus 1 ♂ on Angelica at 2.*Helictes*, as before, but also *H. punctatissimus* & *H. villosulus* ♂♂.*Mellinus arvensis* abundant.*Crabro chrysostomus*, *vagus*, *varius* & *prodegricus* seen at 2.*Odynerus sinuatus* seen on Angelica at 2.*Pompilus gibbus* ♀ on path at 1.*Athalia* & *Tenthredo arenata*.*Tenthredella atra* large ♀ on Angelica at 2.*Phyllotona vagans* ♀ on Alder. (J.F.P.) at 1.*Schizopoda atra* ~~xxxx~~ ♀ swept off small Alders in marsh at 1.*Pimpla detrita*? ♂.*Limneta bellator* ♀*Schizoloma capitata*? ♀ in cave. (J.F.P.)*Ophion luteus* ♀ (J.F.P.)

198.

15th August 1930. Arklow Head & N. end of Arklow Bay, Co. WI.

Bombus lucorum, *agrorum*, *muscorum*, *capitatus*, ~~and~~ *deshmellei*, several ♂♂, *distigendus* seen.*Colletes succinata* fresh ♂♂ & ♀♀: latter nesting on clay cliff at S. side of Head.*Hydraea hyalinatus* 1 ♀ on Crepi.*H. minutus* ♀ on *Leontodon* at S. side of Head on shore.*Andrena pygmaea* ♂♂ & ♀♀, latter fresh, at foot of cliff.*Helictes rubicundus*, *albipes*, *punctatissimus* 1 ♂ on Crepi.*H. villosulus* ♀♀ very common & still working; also 1 ♂ on Crepi.*Salix exaltatus* ♀♀.*Pompilus gibbus* ♂♂ & ♀♀ on path up S. side of Head. One very large & one small ♀ seen fighting, rolling one each other like two boys but apparently not doing each other any harm.*Athalia* & *Tenthredo arenata**Pimpla exanimator* 1 very black ♀. *P. turionellae* seen.*Limneta bellator* common. *L. variegata* ♀♀.*Glypta ceratita* ♀♀ seen. *G. menisurator* ^{type 19} var. with long ovipositor ♀♀ frequent: ? ♂ ^{of former} ~~seen~~ taken.

15. 8. 30. Arkintery cont.

Pimpla brevicornis ♀♀ at Enia.

Pimpla resicaria var.? 6087, 19 (others seen) on wild carrot by field side on N. slope of Arklor Head (cf. ♀ taken at Enniscilly on 12. 8. 30); not *burneyi* or *brevicornis*!

P. maculator small red ♀.

Eretaster guttatorius common on carrot.

Bombus volutatorius ♂. *Triclistus caliscatus* ? ♂.

Red Admiral
very common
? immigrant
seen on
Carrots
locally

[J.F. Perkins left Arklor at 8.40 p.m.!]

16th August 1930. A glorious day, with no wind & much hot sun!

Returned to Kilcarrig Bridge, Co. CN. to look for more *Nomada argentata*. On arrival at 12-15 am I took a ♂ & then a ♀ on path from R. Slaney to marsh on left bank of Glashareigh River. A ♀ was taken on 14th Aug. Then searched *Scabiosa* where *Andrena marginata* ♀♀ were abundant, but no *Nomada* seen. Afterwards none seen on path though searched for several times, but after lunch 2 ♀♀ were taken along top of field along main road W. of bridge at gap into second field. Two ♀♀ *Andrena* (fresh)

16-8-30 cont. Kilcarrig, Co. CN, cont.

marginata seen at path where ♂ & ♀ taken, but none seen to arrive with pollen or to depart & not none seen at top of field across road. Therefore I think there must be some other nesting site for *marginata* & if this could be located the *Nomada* might be found in plenty, as the *Andrena* is so abundant. Also as all the specimens of the *Nomada* are so fresh, it seems likely that more would be seen a few days later.

List of spp. seen or taken. *Bombus terrestris* fresh ♀ in marsh. *Bombus* as before, but add *B. jonellus* ♀ on *Calluna*. *Andrena marginata* abundant on *Scabiosa succisa* in marsh & 2 ♀♀ seen about burrows along path from River Slaney; ♂♂ practically disappeared already! *A. coitana* ♀♀ on *Scabiosa succisa* & other flowers. *A. denticulata* ♀♀ on *Knopweed*, ♂: at top of field above road.

A. minutula ♂ on path through gorse between marsh & Slaney. *Halicti* as before.

Sphex *divinus* ♀ seen on path.

Nomada argentata. ♂ & ♀ on path, 2 ♀♀ at top of field across road. See notes above.

N. rufipes. ♂ & ♀ at end of path next Slaney.

16-8-30 cont. Kilsarry, Co. CW. cont.

No other aculeates of interest seen, except *Myrmica ochroleuca* ♂♂
as usual.
♂ & ♀ taken on path.

Ichneumon ~~sp.~~ ♀?

Proctichneumon laminatorius a ♂ in wet upper end
of marsh amongst mint, with wings so frayed that
it seemed disinclined to attempt flight.

♀ on mint in marsh at same place.

Schizoloma capitata ? ♀.

16-8-30. 3-30-4-0 pm. Stopped at several
places between Coolatin & Tineahely, Co. WI.
There much likely ground but nothing strange seen.
At a bank in field were many ♂♂ of common
Halicti (*rubicundus*, *calceatus* ♂) & here one ♀
Sphex was taken.

17th August 1930. Drizzling rain all day: did nothing!

18th August 1930. Left Arklow at noon & drove
home, arriving 1-45 pm. First morning, cool &
Arklow, my last in Dublin; turning train in left.
& terrapin downpour in evening & night!

END OF ARKLOW TRIP.

19th August 1930. A fine day, but strong S. wind
& heavy showers in middle of the day.

11-30 till 1-0 pm. Sand-pit at Knockanure, DU
as before.

Bombus lapidarius ♂♂ & ♀♀. *B. lucorum* 1 or 2 ♀♀ only seen.

B. muscorum several pale ♂♂. *B. agrorum* ♂♂ (pale) & ♀♀.

Bithynus ruficornis 1 ♂ taken by George. *B. barbutellus* ♂ seen.

Halictus albipennis & *rubicundus* ♂♂ seen.

Nomada sp.? A large ♀ twice seen, black & yellow with
red legs: looked like *N. marshmella* or even more like

N. goodeniana. Very sorry I have no specimens
re seeing it again.

Crabro 10-*maculatus* ♀♀. *C. chrysostomus* ♀♀ & ♂ seen.

C. leucostomus ? seen. *C. niger* ? ♀

Pemphredon shuckardi ♂♂ & ♀♀.

As a ♂ was taken at Portrane, Co. DU, by J. H. Perkins
on 23.8.35 this ♀ was no doubt *N. goodeniana* as I felt
sure at the time. A.W.S. Aug 1935.

19/8/30 cont. Knockmaroon cont. Co. DU.
Verpa vulgaris ♀♀ abundant about Coltoport, etc.

Athalia & *Tentredo arcuata* frequent.

~~*Phaenocarpa*~~ ^{*Athalia*} 1 ♀ taken on car in Phoenix Park
 on return journey. = *Pristiphora pallidiventer*, yellow form
 ♀♀ (2 or 3 sp.)! (2040)

Glypta bicolor var. *contracta* 2 ♀♀ on *Pimpla* cells.

24th August 1930. A fine day, but rather windy, after
 a week of gales & heavy rain.

Porruscourt deerpark, Co. WI. 11.0 AM till 1 PM.

All taken within 1/4 mile of gate & on right bank of
 river, in "the hollow of the logs".

Bombus agrorum 1 or 2 workers only.

Prithyrus barbutellus 1 ♂.

Halictus rubicundus fresh ♂♂ & ♀♀. *H. calceatus* 5 or 6.

H. alpestris & *freycineti* ♂♂ & ? ♀♀ of both spp.

24.8.30 cont. Porruscourt deerpark cont.

Halictus tumulorum ♂♂ & ♀♀. *H. leucopus* ♂♂

All on Ragwort!

Sphaerodes moniliicornis ♂♂ & ♀♀, fresh ♀ on Ragwort by
 road above hollow & close to the "Horse-Shoe Pit".

S.

Nomada marshamella 2 ♂♂ brood! 3 ♂♂ on Ragwort.

Mellinus arvensis abundant.

Cretus sp.? 1 seen on *Hypericum* log.

Athalia & *Tentredo arcuata*. 1 ♂ of latter taken.

Lissonota variabilis 1 ♀ on log. *L. bellator* ♂♂ abundant
 & all flying about rocks etc in swamp.

Stenichneumon calceator 2 ♀♀, others seen, on *Carduus arvensis*, in marsh.
Colpognathus calceator ♂ & many ♀♀ seen on *C. arvensis* in marsh.

25th Aug. 1930. Evening! Garden at 14 Clareville Rd.

Harold's Cross, Co. DU. AWS.

Stenichneumon calceator ♀. *Chistophya incitator* ♀. *Pimpla* ♂.

26th August 1930. A very hot day, mostly sunny but very windy in aft. (S.W. wind).

Afternoon 2-30 till 4-30 pm.

Sand pit by the liffy at Knockmaroon, Co. Du.
as before. Too windy for collecting! 2-30-3-30.

Bombus lucorum, *agrorum*, *lapidarius* & *muscorum* ^{seen} _{4♀}

Psithyrus rupestris & *lucorum* 1♂ each in section.

Halictus as before.

Sphaerodas vesp. monilicornis ♂♂ & ♀♀ very fine & fresh,
on *Carduus arvensis* flowers in field W. of pit.

Nomada marshamella 3 ♂♂ (2 in wood).

Crabro chrysostomus & *leucostomus* ♀♀ seen.

Pemphredon shuckardi common.

~~*Halictus*~~ *Glypta bicornis* var. *rusticatus* 4 with red segments.

26/8/30 cont. Lucan demesne sand pit; Co. Du. till 4-30 pm.
Very hot sun & good shelter in sand pit, but overmuch Sixbourn. G. Barnett. rather.
Reed. Aug. 1930.

Bom. 1st box. *Andrena clarkella*, 1♀.

Psith. *Halictus*, 21 ♂♂.

Hal. *in spp.* as before.

S. ap. *Andrena fucata* 10♂, 2♀♀. *C. arvensis* flowers.

Nom. *Andrena fucata* 10♂, 2♀♀.

Nom. *A. saundersella* 1♀.

Tent. *A. rubropacea* 3♀♀?

Tent. *A. costalis* ♂♂ & ♀♀ common.

Mel. *A. tarsata* 5♀♀.

H. *Halictus calceatus* 1♀. *in* & many *calceatus* ♀♀

H. *H. alipes* 1♀.

Nomada *inficornis* 1♀.

Crabro *min.* (or *pulchripes*) 1♀.

Dolerus *aeneus* ? ♂ & ♀.

26/8/30. A evening work in garden at Mayfield
& next morning a ♀ *Hemiteles* on shelf
in bathroom.

Ovenreagh Siltown. G. Barnett.

Recd. Aug. 1930.

1st box. Andrena clarkella, 1 ♀.

Halictus albipes, 21 ♂♂.

2nd box.

Andrena fucata 1 ♂, 2 ♀♀.

A. saundersella 1 ♀.

A. subopaca 3 ♀♀ ?

A. cortana ♂♂ + ♀♀ common. ♂ & ♀

A. tarsata 5 ♀♀. ♀

Halictus calceatus 1 ♀.

H. albipes 1 ♀.

Nomada ruficornis 1 ♀. ♀

Crabro varius (or palmipes) 1 ♀.

Dolerus aeneus ? ♂ & ♀. ♂ & ♀

26th August 1930. A very hot day, mostly sunny but very windy in aft. (S.W. wind).

Afternoon 2-30 till 4-30 pm.

Sandpit by the hippy at Knockmaroon, Co. Du.
as before. Too windy for collecting! 2-30-4-30.

Bombus lucorum, *agrorum*, *lapidarius* & *muscorum* ♂♂

Psithyrus rupestris & *barbatulus*, 1 ♂ each on Section.

Halicti as before.

Sphex moniliarius ♂♂ & ♀♀ very fine & fresh,
on *Carduus arvensis* flowers in field W. of pit.

Nomada marshamella 3 ♂♂ (2 in wood).

Crabro chrysostomus & *leucostomus* ♀♀ seen.

Pemphredon shuckardi common.

~~Diastylis~~ *Glypta bicornis* var. *rostrata* ♀ with red segment

26/8/30 cont. Lucan demesne sandpit; Co. Du. till 4-30 pm.
Very hot sun & good shelter in sandpit, but not much out after previous week's bad weather.

Bombus: nothing of interest seen.

Psithyrus rupestris 2 ♂♂.

Halictus nitidus ♂ & other common spp. as before.

Sphex moniliarius ♂♂ frequent on *C. arvensis* flowers.

S. affinis ♂

Nomada marshamella 1 large ♂.

Tenthredo arcuata

Melichneumon ruficornis ♀♀ on *C. arvensis* & many other spp. also including *Colletes celeris* ♀♀ & *Stenichneumon culpatior*

26/8/30. In evening took small Anomalid in garden at Mayfield & next morning a ♀ *Hemiteles* on shelf in bathroom.

Portrane, Co. DU.

31st August 1930. A beautiful sunny day, after a wet one: cool NE breeze rather affected collecting in the dunes in afternoon. Not much out.

11-30 till 2-30. Cliffs & from S. Martello Tower to Portrane
Anghlum = 1.

2-30 till 4-30. Dunes 1/2 mile S. of Martello Tower = 2
Bombus lapidarius ♂♂ & ♀♀. B. agrorum (♂♂?) ♀♀.

B. sylvarum a very worn specimen (? a small ♀ or a very a large ♀), very faded with no trace of orange in tail. So far as I know this is the first specimen taken in Co. Dublin. [No B. lucorum seen!]

Prithyrus distinctus 1 ♂ seen.

Halictus rubicundus 1 fresh ♀. H. calcator & albipes ♂♂.

H. tumulorum ♂♂. H. leucopus ♂ & ♀ all at 1.

H. "meathmanellus" Irish form. 6 ♂♂, 1 fresh ♀ & 1 faded ♀ at 1.

Sphucodes affinis ? ♂ & ♀ at 1.

Pompilus rufipes 1 fresh ♂ at Martello Tower on coast.

Pompilus gilvus, P. plumbeus & Tachysphex pectinipes seen.

Odynerus 3-marginatus ♂♂ & ♀ at 1.

Psithyrus provincialis ♂ & ♀

Phaenocarpa pygmaea ♂ & ♀

31-8-1930 cont. Portrane, Co. DU. cont.

Glypta bicorne var. rotundata ♀ at 1 on coast.

Lissonota bellator ♂♂ & ♀♀ seen.

L. ♀ at 2.

Pimpla 3 ♀♀, small, varying from spuria towards arctica.

1st Sept. 1930, aft. S. of Bray Head, Co. WI.

A fine sunny day in Dublin, but mist over hills extended to Bray Head & hid sun. E. wind.

Worked from Wind Gate to sea near Cable Rock in search of Halictus meathmanellus, a ♀ of which taken by old ry. there on 25.9.21 seems to be the true English meathmanellus.

Bombus agrorum ♂♂ & ♀♀, B. lapidarius ♂♂ & ♀♀, both spp. common.

B. praelatus 1 ♂ on Erica. B. muscorum a few faded, (♂♂?).

Halictus calcator & albipes a few ♂♂ seen.

Glypta ceratites ♀. Mesochorus ♂.

Lasion thoracicus ♂.

7th Sept. 1930. A dull stormy morning, turning fine about mid day with much sun in afternoon, after bad weather for two days before. Drove to Athy, then south past Ardree mill to overgrown sand pit in angle of road SE of Farmhill where collected for a ~~short~~ ^{three} hours. Then to railway bridge at Spring Lodge, 2½ miles S. of Athy where in triangular field W. of wood are good banks round field for bees. Then via Milkea & Belan Hs. (both on Green R.) to sand pit on old road 1¼ mile S. of Ballitore & just S. of Willowbrook Hs. All in Co. KD.

11.30 till 2.30. Overgrown sand pit S. of Ardree & Farmhill,

2 miles S. of Athy, Co. KD. = "Athy (1)"

Bombus lucorum nest still working. *B. agrorum* ♂♂ & ♀♀.

B. muscorum a few ♂♂. *B. lapidarius* ♂♂ & ♀♀.

B. derhamellus 1 ♂.

Psithyrus campestris dark ♂♂. *P. rupestris* ♂♂.

P. distinctus 1 ♂.

Halictus lativentris 1 fresh, large, ♂ on *Sonchus oleraceus* flower at N. end of field. *H. albipes* & *calceatus* ♂♂. *Crabro chrysanthus* at stump in north opposite pit.

7.9.30 cont. "N. Athy (1)" cont.

7.9.30 cont.

2.30 till 3.0 pm. Field E. of ry. bridge (W. of wood) at Spring Lodge, 2½ miles S. of Athy, Co. KD. = "Athy (2)"

Bombus spp. as at 1. Also *Psithyrus* spp. same as at 1.

Halictus ruficinctus ♂♂ & fresh ♀♀. *H. albipes* & *calceatus* ♂♂.

H. lativentris 1 ♂ on ragwort at E. side of field next wood.

H. tumalorum ♂♂ seen. *H. ruficinctus* 1 ♂.

Sphex ♂.

Mellinus arvensis ♂♂ & ♀♀.

Crabro varius ♀.

Athalia lineolata & *Tenthredo arcuata* seen.

Pimpla instigator small ♀.

Dyspota praecipua.

Very good ground
& wood should pay
working!

7.9.30 cont. 4.0 till 5.0 pm.

Small sand pit & field of *Scabiosa succisa*
S. of Willowbrook, 1 1/4 miles S. of Ballitore by
the old road, Co. KD.

Bombus lucorum ^{1♀} ~~4~~ *agrorum*, *terrestris* & *lapidarius*
Psithyrus niger ♂♂. ♂♂ & ♀♀ seen.

Andrena minutula 1♀ 2 = brood in sand pit.

G. marginata 1 very dark ♀, not very fresh, on *Scabiosa*
in field.

Halictus rubicundus & *calceatus* ♂♂ seen.

Sphex monilicornis 1♀ in pit, ♂ seen.

Mellicope arvensis ♀♀.

Crabro varius ♀ in sand-pit.

Pegomya *lucorum* ♀ in sand-pit.

(distinct well
worth working!)

10th Sept. 1930. A fine day, but rather dull in
afternoon, owing to S.E. wind & misty clouds on hills.
Poursuout demesse, Co. WI. Almost all specimens
taken on one oak tree on top of right bank of river
about 300 yards below the deerpark gate (the same
place as collected in on 13/9/29!).

10.9.30 cont. Poursuout demesse, cont.

Bombus agrorum a few only seen.

Vespa vulgaris ♀♀ common.

Halictus alpestris ♂♂ seen. *Bethylus pumilus* on oak.

Crabro chrysostomus 1♀ seen. *C. varius* ♂ & ♀ at oak.

Mellicope arvensis ♂♂ & ♀♀ at oak, rare.

Athalia lineolata ♂♂ & ♀♀ on oak.

Tenthredo armata seen on angelica.

Emphytus serotinus 1♂ at oak.

Pimpla rubator ♀♀.

P. maculata ♀.

Phaenocarpa pallipes 1♀ on oak.

1♂ on oak.

14th Sept. 1930. A fine day; after a very wet one:

a good deal of sun & very little wind (N.).

Valley of the Rye Water at ^{Kellytown} ~~Ballykelly~~ ^{Sandford Bridge} E. of Barton
Co. KD = 1; and small quarry 1 mile E. of Kellytown
at Shaughlin's Well, also Co. KD.

Bombus agrorum a few faded ♀♀ & ♂♂ at 1 & 2.

Halictus "maestranellus" (Irish form). A few ♂♂ & many
♀♀ (some fresh & some 1929 (hatched) & very worn, on
Leontodon, *Hypochaeris*, *Taraxacum* & *Sonchus oleraceus* flowers
on Sandford Bridge, in field & bank E. of bridge on right
bank of river & nesting in sand pit 100 yards N.E. of the
bridge on left bank of river. Practically the only *Halictus*
seen on rt. bank of river.

H. rubicundus ♂♂ & ♀♀ in sand pit at 1.

H. calceatus a few ♂♂ seen at 1.

H. tumulorum ♂♂ & ♀♀ seen at 2.

Athalia lineolata at 1 & 2.

Mesochorus ♂ at 2: the only ichneumon seen!!!

Sphex ~~obscurus~~ *obscurus* ♂♂ & ♀♀

17th Sept. 1930. A dull day, mild, with SE-E
wind, before depression & terrific rainy night.

Sand pit on road N. of Sallins, Co. KD. = 1

sand pit on railway at same place = 2.

Much *Scatonia* in latter place & very good
ground if only one could get a good day.

Bombus lapidarius a few ♂♂. [no ♀♀ seen!]

B. lucorum a few ♂♂. *B. muscorum* a few ♂♂.

B. agrorum abundant - ♂♂, ♀♀, & ♀♀ seen on *Vicia*
repens flowers at 1 & on *Scabiosa* at 2.

Psithyrus rupestris several ♂♂. *P. bartollettus* 1 ♂.

P. campestris 1 dark ♂ at 2. ["Bumble" nearly all at 2]

Halictus rubicundus, & *albipes* a couple of ♂♂ of each at 2.

No other aculeates seen!

Lissonota communis ♂♂ (at ^{*L. cylindricornis* ♀} ~~at 1 & 2~~ ^{on carrot at 1.})

Tryphon elongator at 1 (not taken!).

Homocidus tarsatorius ♂♂ (& other small spp. & Braconids all on thistle, at 1) ^{very} common.

H. nigritarsus ♂ & ♀.

21st Sept. 1930. 10-30 till 12-30 noon. A fine sunny morning, but very windy with rising glass after much terrific rain.

Powerscourt - demesne, Co. WI. Just below deerpark gate on right bank of river. Most collected at top of river bank amongst nettles, grass, docks &c (=1) or at first oak tree on top of right bank nearly opposite Valchura Ho. gate (=2).

Bombus agrorum & *Vespa vulgaris*. one or two of each seen.

Emphytus ^{serotinus} ~~serotinus~~ ♂♂ very common at oak at 2.

Athalia lineolata seen.

Polyphincta multicolor ♀ on oak at 2.

Pimpla maculator ♀ at 1. *P. flavicornis* ♂. *P. IV-dentata* ♀.

Promethes pulchellus ♂ & ♀ at 1. *Picrostigena recticauda* ♀?

Oteniscus gnathoxanthus ♀ (?) 4.

24th Sept. 1930. Aft. 2.30 - 4.0 pm. A fine day with much sun though windy & some showers. W wind.

Glenasmole, Co. DU. Everything collected about Brady's house, either in the old garden⁽⁼¹⁾ (a few only) or at flower of *Phytolacca sagittalis* near the river (=2).

Bombus agrorum several seen at *Scabiosa succisa* 2.

Mellinus arvensis ♀♀ at 2.

Pimpla (*Trostanus*) *elegans* ♂ at 2.

Pimpla IV-dentata 3♂♂, 1♀ at 2. *P. laticinctae* ♂ at 2.

P. maculator ♀ at 2. *Lissonota sulphurifera* ? ♂.

Mesoleius (*Lagarctus*) *semicaligatus* ? ♂ at 1. *Exochus pictus* ♀?

Promethes, ^{sulcator} ~~alticola~~ 5 ♂♂ at 2. *P. pulchellus* 1 ♂ at 2.

28th Sept. 1930. A fine day after a couple of dull & cold ones, wind N. but considerable sun.
11.30 till 2.30 pm. Ballyhenry quarry, Co. WI.

Bombus agrorum a few ♂♂ & ♀♀.

B. lapidarius 1♂ reported by George & Hugh.

Halictus calcatus 1♂ seen.

Vespa vulgaris a few ♀♀ seen.

About a dozen ichs & Braconids taken including
Diaborus lituratus on alder.

Caliva annulipes 1♀ em. 11.5.31: Larva probably on *Salix*! RCLP.

Phaenocarpa picipennis & *N. luteus*, em. May-June 1931. ✓ RCLP.

Used Bequell beating tray for first time & brought home a couple of dozen sawfly larvae including:-

C. varus ✓ RCLP. 2 or 3 on alder: green with black dots: 1♀ em. 23.4.31.

Platycampus luridimaculatus ✓ RCLP. flat, green, with black paired dots, on alder, em. May-June 1931.

In March 1936
R.B. Benson agreed
that the first ♀♀ named
taken by R.C.L.P. were
welly recorded as British
by Benson in E.M.M.
Nov. 1935
AWS.

Pteronidea sp. n. Int. v. RCLP.
107 em. 9.5.31 = *fuscicornis*
Benson 1934

28.9.30 cont. 3 till 5 pm.

Ballyhenry, Co. WI.

A few spp. of ichs & Braconids taken: mostly at oak in field at top of rd & lane.

Two sawfly larvae taken from *Salix* & *Berich*:
the former green with pink stripes on back, the latter
all green & injured

1st Oct. 1930. A dry dull, foggy, afternoon. E. breeze.

3.0 till 5.0 pm. Slade Brook, Upper Glenasmole, Co. DU. 700-700ft.

Spent the afternoon beating *Salix aurita* & *cinerea* bushes, birch &c.
for sawfly larvae. About 7 or 8 spp. taken (only a few of each caught).

a lot (2 series) of *Pteronidea* * green with small black spots
& yellowish head & tail. Many small & few larger ichs. &c.
beaten into tray & captured with fingers:-
Pteronidea melanops v. *maculigera*
1♀ em. 2.5.31 ✓ RCLP.
Pontania leucosticta ♀ ✓ R.B. Benson.

collina Stelfox, co type ♀ AWS. 1940.

h. r. p. 67
h. r. p. 67

v. Belmont II., Wanderers II. v.

March.
ld Semi-final.
ld Final.
April.

" B " Division.

October.

II v. Wheatfield, Ophir v. Hyde-
III. v. Civil Service, Edgehill v.

Cliftonville III., Wheatfield v.
rvice v. Ophir, Albert Foundry v.

III. v. Civil Service, East Antrim
Ophir v. Albert Foundry, Edgehill

v. Edgehill, Wheatfield v. Ophir,
Antrim III., Civil Service v. Albert

November.

v. Cliftonville III., Hydepark v.
v. East Antrim III., Edgehill v.

II. v. Cliftonville III., Wheatfield
Edgehill v. Ophir, Civil Service

II. v. Ophir, Wheatfield v. Civil
dry v. Hydepark, Edgehill v East

December.

v. Hydepark, Edgehill v. Wheat-
il Service, East Antrim III. v.

v. Cliftonville III., Wheatfield
Albert Foundry v. Ophir, Hyde-

Cliftonville III., Ophir v. Wheat-
II. v. Hydepark, Albert Foundry

January.

II. v. Albert Foundry, Wheatfield
Antrim III. v. Ophir, Civil Service

II. v. East Antrim III., Albert
eld, Ophir v. Edgehill, Hydepark

Cliftonville III., Civil Service v.
rk v. Albert Foundry, East Antrim

ld—First Round.

February.

—Second Round.

—Third Round.

Cliftonville III., Hydepark v.
v. East Antrim III., Albert

March.

ULSTER EGG-LAYING TEST

Period 16th October, 1929, to
16th September, 1930.

THE FINAL FIGURES.

The results of the egg-laying test (pullets) from the 16th October last to the 16th September, when the final period of four weeks ended, have just been issued by the Northern Ireland Ministry of Agriculture. The figures given below, the report states, are subject to alteration when the records are finally checked. An announcement regarding the awards of prizes and certificates will be made in due course. The next Test will commence on 15th October, 1930.

The following table gives the names of owners of pens, and the number of eggs laid by each pen:—

Section 1—White Wyandottes (31 pens)—Mrs. Porter-Porter, Belle Isle, Lisbellaw, 1,296 eggs, value £10 13s 2.09d; Mrs. Andrews, Ballymacconnell, Bangor, 1,301; Mr. T. B. Brown, Donacloney, Lurgan, 1,230; Miss Finlay, Glencairn, Clandeboye, 1,279; Mr. D. M'Intyre, Gas Works House, Dungannon, 1,347; Mrs. Darley, Trory, Ballinamallard, 1,163; Mrs. Pringle, Moor Farm, Ballygawley, 1,267; Mrs. Loughrin, Mackney, Cookstown, 1,292; Mrs. Warnock, Rathgael, Bangor, 1,188; Miss R. B. M'Cormick, Brookend House, Stewartstown, 1,194; Mr. Lindsay, Hollygrove, Ballyhinney, Newtownards, 1,191; Mr. M'Cann, Drum-keeragh, Ballynahinch, 1,196; *Mr. J. Heron, Ardigon House, Killyleagh, 1,342; *Mr. M'Master, Charlotte Street, Ballymoney, 1,288; Miss S. J. Moore, Ballynacannon, Macosquin, Coleraine, 1,233; Lady Dunleath, Ballywalter, 1,157; *Mrs. R. Baird, Kilbright, Grey-abbey, 1,193; Mrs. J. Boyd, Northfield, Donaghadee, 1,041; Mr. A. R. Jackson, Portmuck, Islandmagee, 1,169; Miss M. Shields, Altmore, Pomeroy, 1,103; Mr. J. M'Iloy, Drumnaquoile, Castlewellan, 962; Mrs. J. Jamison, Newcastle Road, Castlewellan, 1,128; Mr. W. R. Stewart, Skilganaban, Ballyclare, 1,078; Mr. W. Hall, Drumnacairn Poultry Farm, Lurgan, 1,017; Mr. H. Shaw, Mullaghmore Cottage, Green-island, 1,096; Mr. W. Denvir, Castlebuoy, Portaferry, 1,019; Mrs. M. A. Barnett, Ballagh, Clogher, 852; S. M'Murray, Cappy House, Banbridge, 821; M'Neill, Drain's Bay, Larne, 826; Capt. C. Geery House, Killyleagh, 846; Mr. W. Ballymena, 492.

(20 pens)—Capt. C.

MOTORING.

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THE CADET CORPS

Will Live Despite "Government's Effort to Kill Them."

The "Morning Post" says:—The Cadet Corps, although the Government has attempted to kill them, are not to be allowed to die. A new organisation has been formed, as our military correspondent reports, to continue the good work. Lord Allenby, never slack in the public service, is to be the head of a strong Federal Council. The organisation is on a territorial basis, each cadet battalion being under the charge of its county committee, over which the Lord Lieutenant of the county concerned will preside. Thus a movement which encourages patriotism and service in our youth will be maintained in spite of official neglect and political hostility. The pacifist and the little Englander still persist in the fallacy that disarmament secures peace, and that by turning the British Lion into a British sheep all danger of war may be avoided. They were preaching exactly the opposite on the very eve

TWO DAY

HOUSEHOLD

PIANOS, STECK PIANOLA PIANOS,
WOOLLEN KNEE RUGS,
FITTINGS, AND

IN THE MART, 38

On WEDNESDAY

Commence

VERY FINE UPRIGHT
"Steck" Pianola Piano,
American Organ; 10-stop Organ
and Portable Gramophones; Electric
Cinematograph Machine; Ten
and Rexine; Odd Chesterfield
in crimson plush; Twelve Odd
Oak Drawing-room Settees; Ten
and Rocking Chairs; Inlaid Mahogany
China Cabinets; Mahogany
Rosewood Music Cabinet; Mahogany
Mantel Clocks; Brass and Oxidized
and oak; Mahogany Dinner Table
and Walnut Telescopic Dining
Fine Walnut Billiards-Dining
Dining Suites; Odd Couches and
case Top; Twenty Overmantel
Chairs; Grandfather Clock, in
in walnut, burr-walnut, oak,
Wardrobe; Ten Odd Wardrobes
Beds, in walnut, burr-walnut,
Couch; Bed Chair; Cambric
gany, and deal; Twenty

5th Oct. 1930. A fine morning but very windy.
Beating for sawfly larvae on Salix, & in
Lansdown Marsh (=1), Kilmacange Marsh (=2)
& The Quill Channel Marsh (=3), Co. WI
10-30 till 12-30 noon. In Museum in aft.

At-1. I took three green larvae with pink dorsal
stripes: also 1 or 2 deep
green larvae which escaped? All on Salix.

At-2. One deep green with pinkish tint & 1 dull
green with minute spots, latter very small. Salix.

At-3. On Birch: 3 or 4 pale green spatulate larvae
One small ich. beaten out of Salix at 2.

& 1 large Arctostichus seen on Angelica but missed
at 1.

[One small sp. taken in water on ^{arrived} home!
= Orthocentrus radialis?]

Pontania sp. (probably P. bella: R.C.L.P. in Lett. 6.4.32) 107 cm. 6.6.31.

6th Oct. 1930. A showery day, but sunny
intervals: very strong SW-W winds. Day after
the disaster to airship R. 101 in France!
Georgia's ^{1st} monthly holiday!
Drove to Newbridge & then towards Rathangan.

but not so far, then round Hill of Allen, back &
ascended & home. Co. KD.

On N. side of Hill of Allen saw Bombus agrorum
(several), ♂ at least & 10 each Halictus calceatus
& H. fuscipes or Raymond-florum.

On return journey caught an ich. in water just
W. of Naas, Co. KD; at canal bridge.

12th October 1930. A beautiful day! Very warm sun
most of the time & only a few stray clouds in morning, but
very cool W. breeze. Plenty of flowers out!
Meeting of the Waters, Arona, Co. WI. 11-45 till 3-30 pm.
Scrub on rt bank of river by ry. bridge above Castle Howard
gate = 1. Hedge of field on left bank of river above
next ry. bridge over river = 2.

Bombus agrorum ♂♂ at 1 & 2. B. lucorum 1 ♀ on ry. at 1.

Halictus rubicundus 1 ♂, several fresh ♀♀ above 1 on ry.

H. calceatus ^{10th} ♀ on ry. at 1. H. albipes 1 ♀ at 1 on ry.

H. fuscipes ♂ & ♀ on ry. above 1. } all Halicti on Leontodon

H. villorum ♀♀ on ry. above 1. } or other composites.

Vespa vulgaris nest in full swing at 2 & 1 ♂ taken on ry.

Aethalia ♂ at 1: the only sawfly seen!

P. T. O.

12.10.30 cont. Meeting of the Waters cont.

Amphytus subvirens ♀ seen at 1.

Pimpla instigator large ♀ seen at 1.

P. brevicornis ♀ at 2. P. detrita ♀ ♀ at 2.

Polyrhina multicolor ♀ at 2.

Homocidus pictus 1 ♀ at 1. H. pallipes 1 ♂ at 1. Promethes pulchellus 1 ♀ at 1?

Bassar tricolor 3 ♀♀ at 1.

Lagarctus (Mordicus) debitus ♂ on thistle at 2; also a black ♀ (2 at 2).

Stenomacrus ventralis 1 ♀ at 1.

Pachyura ...

Pachyura ...

[Pontania 2000 (probably P. bella: see R.C.L.P. in litt. 6.4.32).

"when bred"

15th Oct. 1930. 2-30 till 4-30 pm. The third very warm humid day in succession. Fine in Dublin after 10 AM, but not in Portlaoine till just before our arrival. Very dull.

Portlaoine demesne, Co. WI.

1 = just above Tinnahinch gate. 2 = at back of river just below the deerpark gate.

15.10.30 cont. Portlaoine demesne, WI.

No Bombus or even Vespa seen.

Emphytus serratorius ♀ flew into water close to the middle lodge, just above it it was discovered on screen by Hey!!

19th Oct. 1930. A cold wet day, with floods & gale in afternoon. Not out at all!

22nd Oct. 1930 Afternoon. After a fine morning it turned to rain just as we arrived at Enniskerry, Co. WI. Saw one ich. & Vespa vulgaris ♀♀ on my Horsem.

26th Oct. 1930. A dull day: with rain later.
Cold NW wind in morning but mild in
afternoon.

Devils' Glen, Co. Wicklow (Demesne & Glen)
with George. 11.30 till 4 pm.

Hymenoptera (i.e. small species) very abundant!!!
Schneumon deliratorius ♀ at Ivy Blossom in Glen.

Pimpla maculator ♀ beaten out of Spruce at top of Glen.

P. turinellae several ♀♀ swept in Glen.

P. w-dentata ♀, with pale red hind tibiae!

Several species of Plectiscidae, Atractodes,
Proctotrupids, Braconids & ? swept in
demesne & Glen.

Mesochorus ^{uliginosus} ♂

Stenomacrus ventralis ? 5 ♂♂, 1 ♀.

Orthocentrus ^{pulchellus} ♂

Alexichneumon ♂

Opis ♂

Formica rufa nest very dilapidated & few ants seen; but
several beaten out of Spruce 15 yards below nest!

29th Oct. 1930. A dull, damp, warm day before a
depression: had five minutes collecting before rain
came on.

Barnaheen, Co. DU. Beaten off Ivy Blossom
by the fallen blocks of conglomerate just above
Mr. Doyle's.

1 Proctotrupid & 6 Schneumonids.

Stenomacrus ventralis 1 ♂, 3 ♀♀.

Orthocentrus ^{pulchellus} 1 ♂

9th Nov. 1930. A warm morning, cold afternoon, very
wild with rain coming in the wind & most of the day.
Walked with Hugh from Whitechurch bus via St. Columba
& back by Sandypord road to Rathfriland, Co. DU.
Vespa vulgaris ♀♀ on Ivy Blossom & no doubt others. Had
the beating tray with me.

11th Nov. 1930. A fine sunny day, but with very cold W. wind. 2-30 till 4.0 pm.

Glen above Enniskerry (1/2 a mile), Co. WI.

About a couple of dozen ichs. & braconids feeding off ivy blossom, hazel, oak &c. (mostly off ivy!).

Stilpnus

~~Stenomaerus ventralis~~ Stenomaerus ventralis 107, 399.

Orthocentrus

Plectiscus

Pezomachus ♀ beaten out of ivy.

Dacnusa

15th Nov. 1930. A wet morning & a cold clear afternoon!

Drove D. H. Kavan (Edinburgh) to Mountmellick, WC. to look for Vertigo genesii &c. Passed some very nice ground for insects between Ballybutter & Mountmellick canal, round about Emo Park. No hymenoptera seen during the day.

16th Nov. 1930. A glorious day, with hot sun, but cold N. breeze.

Drove D. H. Kavan via Clonsilla to Leixlip to get Amphipepla glutinosa in Royal Canal.

No hymenoptera seen!

23rd Nov. 1930. A beautiful day, after a very stormy wet day & bitter cold night. First snow on the hills & Secaucus almost white. Much sun up till 2 pm & quite hot in shelter. With E. wind.

Drove via Muri Cross to Clara, Co. WI.

Verpa myrica ♂ & ♀ very busy at ivy blossom near Muri Cross.

In oak wood below Clara Bridge & especially behind the sand flat & about the Broxy Burn ichs. abundant at ivy blossom & also feeding off Vaccinium &c. Blackfly & I also got about a dozen in rotten logs in hibernation.

Stenobothrus defraudator? 399 in hibernation.

23 Nov. 1930 cont. Clara road, Co. WI.

Beaten off ivy, Vaccinium &c

Pimpla rufata. ♀♀. 1 of 18 double & all off ivy.

P. tuniellae 2 ♀♀ on ivy

Phyophanta multicolor 1 ♀ on ivy.

Orthocentrus protuberans? 2 ♀♀. 1 on ivy, 1 on leaf?
 O. radiatus 1 ♀ on ivy.
 O. (10/10) hirsutus 1 ♂ like "longipes" but less yellow. 1 ♀ on ivy.

Stenomacrus reductus? 1 ♂. 1 ♀ on ivy.

30th November 1930. A beautiful morning, after 3 days frost & frosty night (Dublin in thick fog!). Kilmashogue, Co. DU. Walked up lane from N. school & across moor & back by St. Columba's. Many wasps on ivy behind college! Beat the following spp. off ivy blossom in lane above school & behind college.

Dacnusa 1 ♂

Hemiteles off 45

Orthocentrus protuberans 2 ♀♀

Cynipid

3rd December 1930. A dull day, mild & calm (foggy in Dublin) after a couple of dull dripping days.

Worked ivy on trees above Mr. Doyle's at foot of Glenasmole (Bohernabreena), Co. DU.

Dacnusa

Stenomacrus

6000, 2 ♀♀, semi testaceous sp. with pale yellow stigma.

7th December 1930. A cold clear day after a wet night!

11.0 till 12.30 noon. Enniskerry & The Dargle, Co. WI.

All beaten off ivy blossom, but this too wet for good results.

Hemiteles

♀ between the roads N. of Enniskerry.

Stenomacrus

♀.

Dacnusa

3 ♀♀

Cynipid, ♀

Tinnahinch Ho. dome at head of The Dargle.

[Also took 1 ♀ Cynipid at the Co. Dublin side of The Scoop on way home!]

Vespa vulgaris at Enniskerry & Tinnahinch, ♀♀ &

also 2 ♂♂ at latter place.

10.12.30. A cold stormy afternoon! Slide of Saggart, Co. DU. Beat out of ivy blossom Stenomacrus reductus, 1 ♀ Orthocentrus reductus? 1 ♂. ? St. Hemiteles.

14th December 1930. A very cold day with heavy, shower about 11.30 AM., after a couple of cold stormy & wet days.

Drove via Phoenix Park to Lucan & Lome, is. du. Stopped at the "Furry Glen" in the park. There some good ivy still in flower on old thorn trees, but only one clump yield hymenoptera: namely, Stenomacrus ventralis 2 ♀♀, 1 Proctotrypid ♀ & many Daenusa (? all ♀♀). Too early, windy & cold!

Then drove on beyond Knockmaroon & worked the east-end of Luttrellstown wood (Woodlands). There in one "beat" from ivy in kind of old quarry I had many many dozen if not some hundreds of Daenusa on the tray: and only 1 Stenomacrus ventralis. Nothing else seen & none taken from this place, but the place might pay in summer!

21st December 1930. A nice day after a slight frost at night, but rather dull. Drove to the ^{col} ~~coll~~ between "Carrigrohilly" & The Scalp, Co. Dublin. Beat ivy blossom in lane behind Kingston Lodge (=1) & on S. side of the col. above Ballyman (=2).
Daenusa ♀, Stenomacrus ♀ &
Bracon ♀ & Chalcid at 2.

231.

(232.)

1931.

1st Jan. 1931. A fine frosty day with blue sky & warm sun. George with meadow, so Hugh & I drove up to Brady's in Glensmole, Co. DU. & walked round upper reservoir. On way home stopped & beat some ivy below calcareous cliffs behind Mr. Doyle & got 2♀♀ Dacnusa.

2nd Jan. 1931. Another perfect winter day! Drove Hugh to New Castle, ^{Co. DU.} & walked S. for a mile & back. Shook roots of Prunus for aphids. but only got a few beetles.

3rd Jan. 1931. Another perfect winter day, also! Drove Hugh to Killiney, ^{Co. DU.} & ascended till from sea side. On way up through Victoria Park I beat a few bits of ivy on wall & got 3♀♀ Stenomacrus.

4th Jan. 1931. A still finer day! Drove Hugh & M.B. to Arklow Head, Co. WI. & walked over head to Arkintony; afterwards called at "Merton" & drove home. Nothing collected except Linum (Riccia 2 spp.)

8th Jan. 1931. The eighth frosty day! See just having but depression approaching from N.W. & after a lovely morning with hot sun, very cold & windy by 11 AM. Worked ivy in old lane behind St. Columba's Coll., Co. DU. but only got 1♀ Dacnusa.

22nd February 1931. A lovely day, but strong W. wind. Drove to Ballyhenry quarry, WI. There spent 1½ hours in hot sun & shelter. Two Chalcids & beetles beaten out of Gorse (in flower) but no other hymenoptera seen. Then drove on to Mun's Cross & walked to foot of Devil's Glen & back.

15th March 1931. The record of two beautiful spring days, after very bitter cold & windy fortnight. Drove to Ballyhenry quarry WI & spent a hour there (11.0-12.0 noon): a few willows out along road but none out there: saw only 1♂ Meloi proserpinus but no Bumble & no Andrena. On way home, 12.30, called at sandpit at bottom of Glen of the Drom where saw one of Honey Bee on a dandelion, but nothing else.

22nd March 1931. A bright sunny day with cool breeze from S. With A.A.L.

11.30 till 2.0 pm. (Ballyhenry quarry & marsh, Co. WI.)
 (Kilmartin Channel) ⁽⁼²⁾ ⁽⁼³⁾
 A.A.L. and he heard Chiff at 1 & 2 did not!

Bombus lucorum a few ♀♀ seen at willows at 1 & in field beyond 2 & opposite 3. One ♀ working!

B. terrestris 2 ♀♀ just out on willows in field opposite 3.

Andrena clarkella ♂♂ common at 2.

Andrena sp.? ♂♂ seen at 1 which looked like *praecox* or *apicata*, but may have been *clarkella*.

Peacock Butterfly at 1 & Tortoiseshell at 2.

22.3.31 cont. afternoon. Very hot sun!

N.W. edge of scrub at N. end of Deputy's Pass, WI.

2.30 - 3.30 pm. There is very good ground along small stream gully along N. edge of old wood!

Andrena praecox ♂♂ flying over dead hickory (A.A.L.)

A. clarkella ♂♂ & 1 fresh ♀. Latter twice seen on ground stem & ♂♂ round same & settling on tree trunk

&c. in hot sun.

Amthylus = *crispatorqueus* var.? ♀ on side of bank.

Ichneumon (♀ like *superbus*) seen near same place.

25th March 1931. A fine sunny day but with cold E. wind in morning, drove to Lucan via Knockmaroon, home via Glendalkin, Co. DU. Nothing out at any place visited & no *Bombus* on willows along Liffey at Knockmaroon, though there in full flower. Near Ecker, S. of Lucan discovered a fine drained sand pit & also nice ground in valley of Griffeen River W. of sand pit. March *travels* & *biological* out here!

25.3.31. Glenside & Eniskerry, Co. WI. ^{very sheltered} & hot sun!
 1 = bank at E. side of marsh between roads N. of Eniskerry
 2 = sand-cliff facing S. 1 mile up Glenside (= Glencallen)

Bombus lucorum a few ♀♀ seen at willows at 1.

Seen 2 willow bushes well out by stream

Andrena apicata ♂♂ common on trunks of trees &c

at 1. Also *Andrena* ♂♂ at 1 & 2.

A. praecox 1 ♂ taken on great cliff of glacial sands at 2.

A. grayana - Very fresh ♂♂ at 1.

A. nigrescens 1 ♂ seen at 2, almost certainly this species.

29th March 1931. One of the worst possible days! After nearly a fortnight's beautiful weather soft warm rain came on on Sat. morning (28th) & during the night a cold "jam" formed & today we had half a gale from S.E. with sheets of cold rain & sleet. Drove with AM from to Ashford & home.

3rd April (Good Friday) 1931. A dry cold day with strong N. wind & very occasional sun bursts, after a dreadful week of six wet days & six almost wet nights (cold, sleet, snow in mountains, & great floods everywhere) which completely killed off all the bees tempted out previously.

Drove to Ballyhenry Quarry, Co. WI. 11.30 till 12.30

Andrena apicata on a tree or two seen & possibly one ♀.

A. clarkella several ♀♀ running on stones, etc.

Bombus terrestris 1 dead ♀ clinging to grass!

Then drove on to meeting of the Satons, Anra, WI & stayed till 3.30: very cold here & practically no sun. ~~Spent~~ Took two *Andrena* ^{*apicata* } 1st} _{*pratensis* } each} on ♀ willow in veg. cutting below Castle Howard.

Collected several old *Trichosoma lucorum* cocoons on birch at same place, two of which had very tiny holes in them, unlike those made by any parasite I have experienced.

On way home stopped & examined very good ground in channels on south side of Carrick Rd. near the "water flash" between Arkford & Glenashly!

Willow Warbler
- Ballyhenry Quarry
- Alder Grove
Martin (1) looking
over river
meeting of the Satons
Wood Anra
W. S. S. out below Castle
Howard.

9th April 1931. A gloomy day with light drizzle in the morning & rain in the afternoon & evening. Breeze from the west.

Bees were out in full numbers at commencement of day & a few were seen on ♀ Salix.

Bombus lucorum ♀♀, *B. agrorum* ♀♀ on Salix.

B. lucorum ♀♀.

Andrena ...

Trichosoma carbonaria ♂ on ...

This ♂ agrees in all respects, except the black band of ... with the ♀.
A.W.S. 22.8.1931.

9th 10th April 1931. Breeze from the west & rain in the afternoon & evening. Breeze from the west.

16.4.31 cont. - [illegible]

Lebena punctatissima [illegible]

Agathis [illegible]

Ammonia rubicunda [illegible]

Pimpla [illegible] & [illegible]

Pezomachus [illegible]

[illegible]

[illegible]

17th April 1931. A cold windy day with

considerable but not much sun in the day.

11.4.31 1 pm.

Bradley Wood, near Allib, [illegible]

14th R.C.L. 0 ft. [illegible]

Bombus terrestris several [illegible] 2.4.31

Andrena albicans [illegible] 1.4.31

A. cineraria [illegible] 1.4.31

A. nitida 10 ft. [illegible]

A. minutula 1.4.31

Halictus laevis [illegible] 1.4.31

Labelled
SD. AWS.
17.4.31

17.4.31 cont. - [illegible]

[illegible]

Agathis [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

18th 20th April 1931. Very wet & stormy, [illegible]

[illegible]

22nd April. A fine morning, but little sun after

10.4.31 [illegible]

10.4.31 [illegible]

10.4.31 [illegible]

10.4.31 [illegible]

6 pm. B. lapidarius 1.4.31

P.T.O.

247.

22/4/31 cont.

12 noon till 2 pm. W. side Park, Bexley.

1 = Pond near Langer, Lodge. *Andrena* *aurata* 1st.

2 = sand-pit near Black rest gate, Virginia Water.

Bombus terrestris 8 lucorum 99 seen at 1.

Andrena dorsalis 1st at 1.

A. similis 1st at 1.

Pompilus vaticus 18 at 1.

Stenomacrus madidus 2 1st at 1.

D. cf. ... 22 at 1.

D. ... 1st at 1.

22/4/31. Apt. Very cold wind, no sun.

3.30 pm. E side of Henriche. St. Road, Surrey.

Andrena fulva 1 m, 1st at 1.

23 April 31. Went to ...

... ..

collected *Andrena fulva* ...

... ..

A. nigrescens

248

Holobus ...
Pompilus ...

26th April 1931. A dull day with a light drizzle
of rain & strong wind N.W.

Blean woods, near Canterbury, Kent, with
H. C. Hygin.

Bombus lucorum 8 ♀♀. 5 ♂♂.

B. pratorum 4 ♀♀. 5 ♂♂. in Blean wood.

B. agrorum 1 ♀. 1 ♂. in Blean wood.

Andrena clarkella 1 ♀. 1 ♂. in Blean wood.

Nothing else seen during day, except a few

Andrena praeusta at Blean wood.

Seen taken on 24. 4. 31.

27th April 1931. Left Great Britain
& returned to Dartmoor. Midland of
England very pretty & good & some signs
of abnormal, bad weather.

